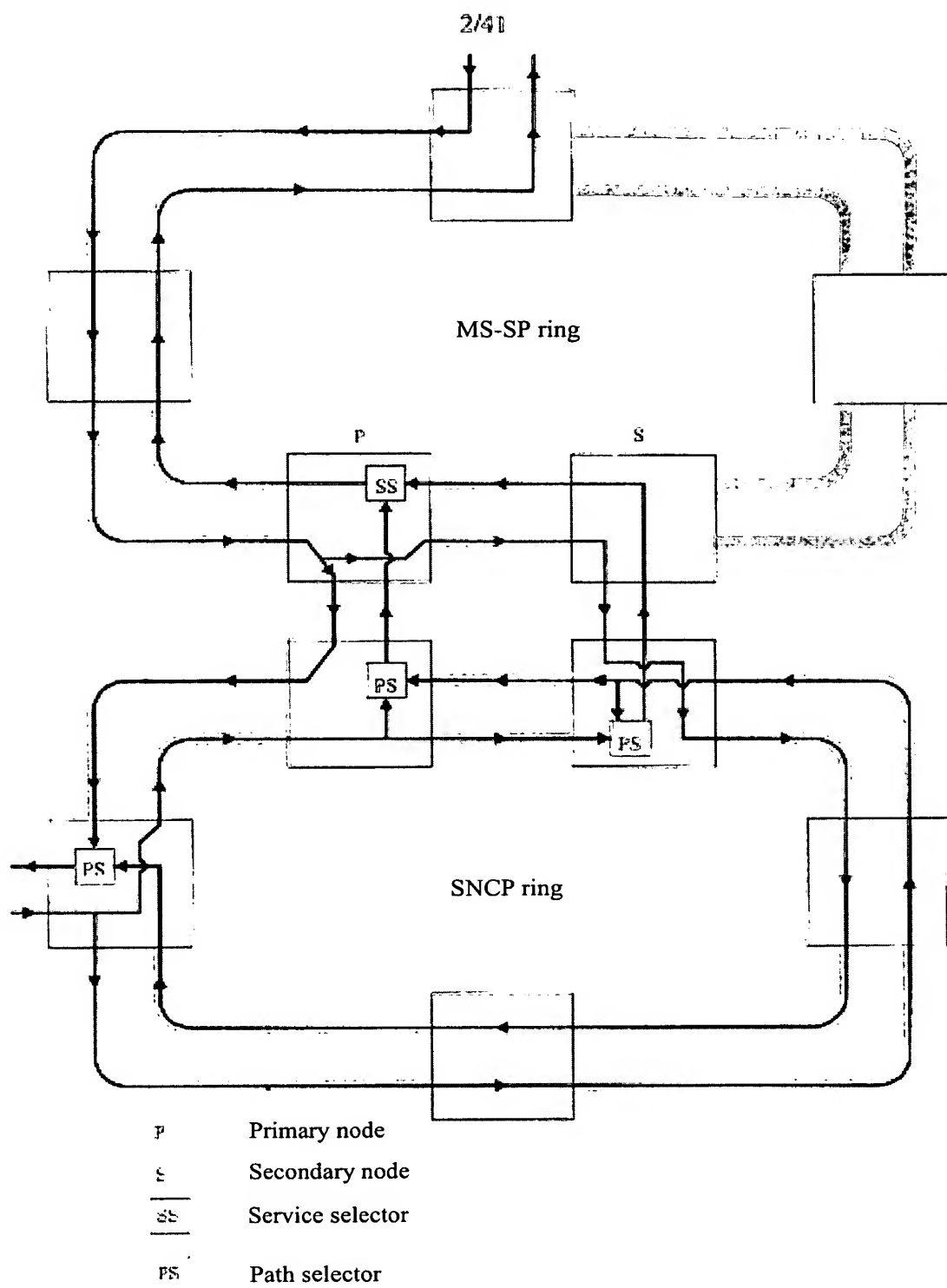


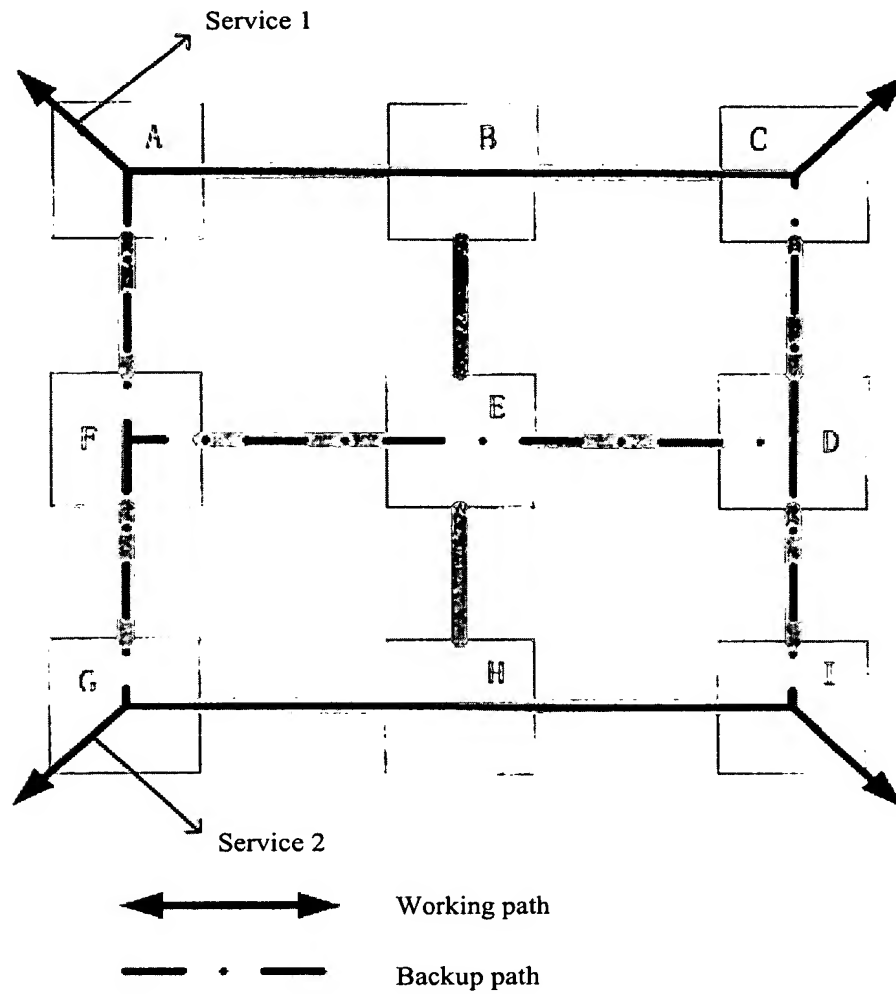
Fig. 1



A dual-node service interconnection configuration between a SNCP ring and a MS-SP ring

Fig. 2

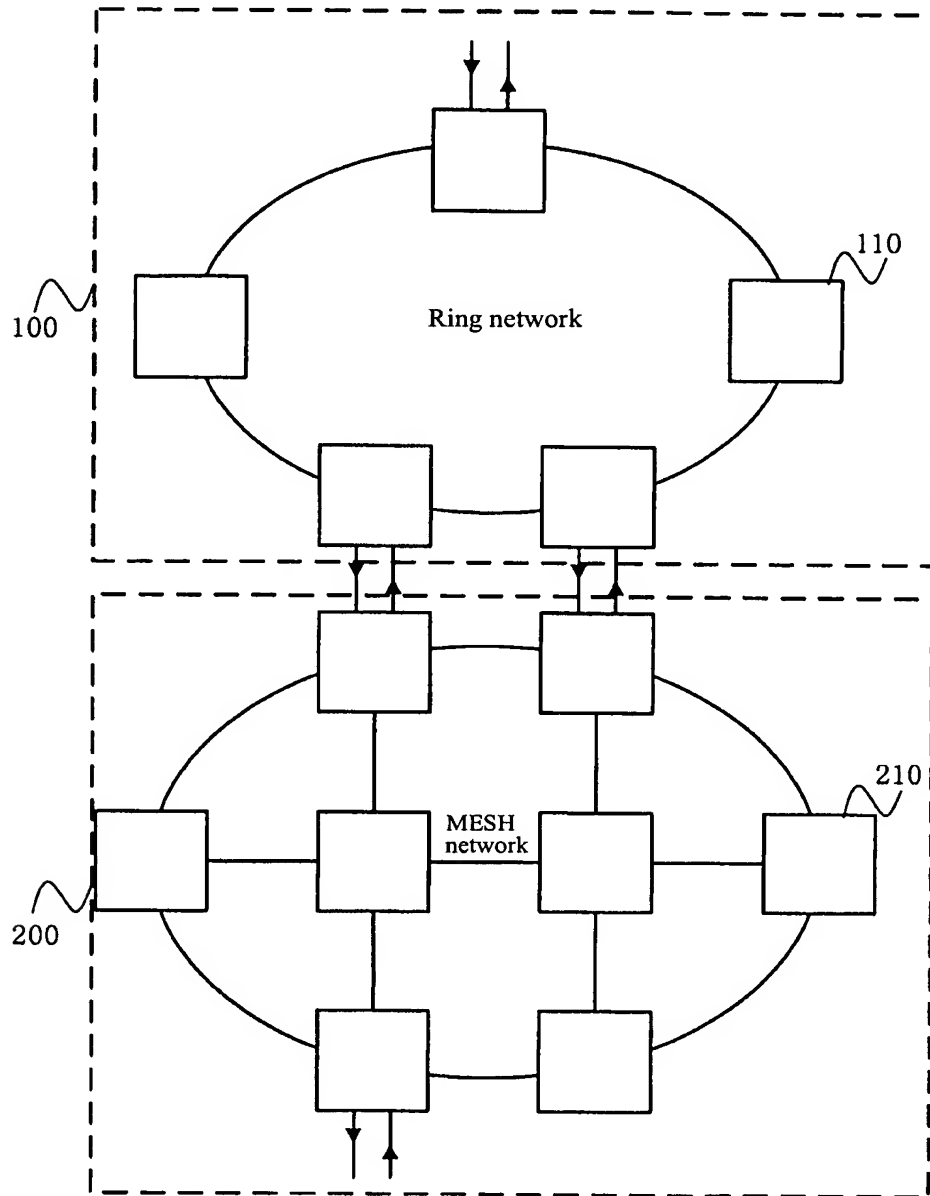
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An example of restoration in a mesh network

Fig. 3

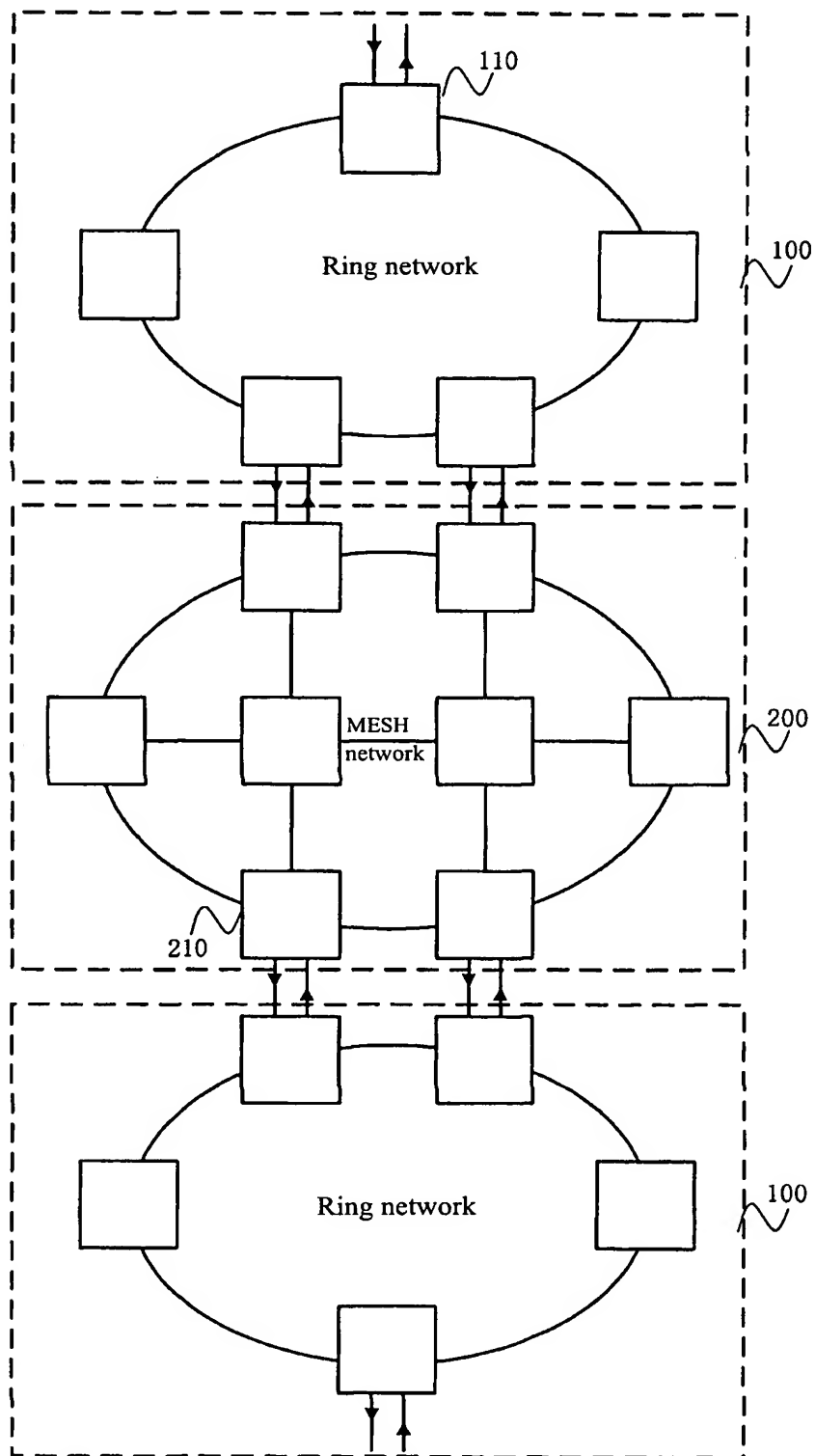
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A dual-node interconnection structure between a mesh network and a ring network: Mesh-RING

Fig. 4

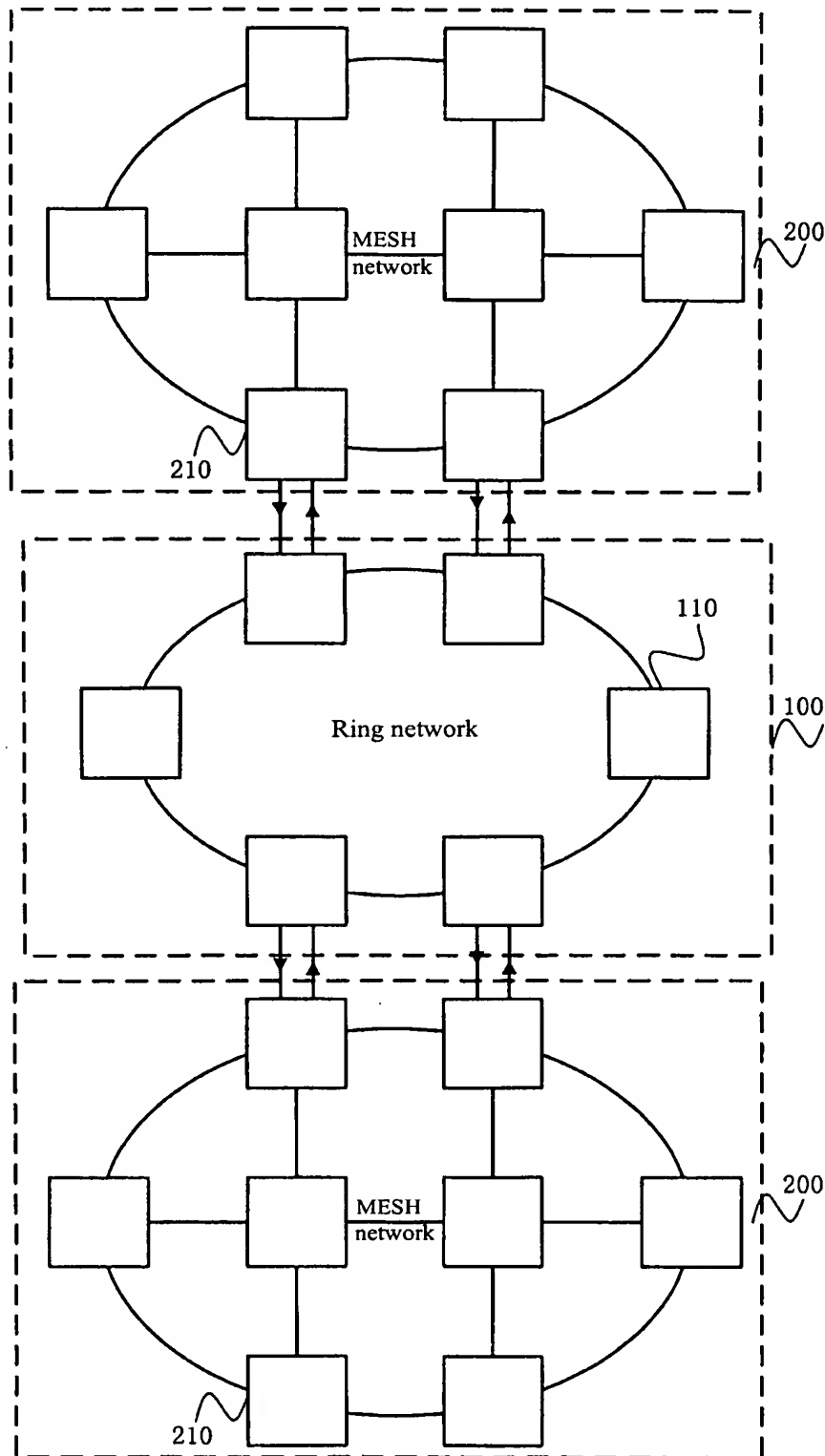
5/41



A dual-node interconnection structure between ring networks and a mesh network: RING-Mesh-RING

Fig. 5

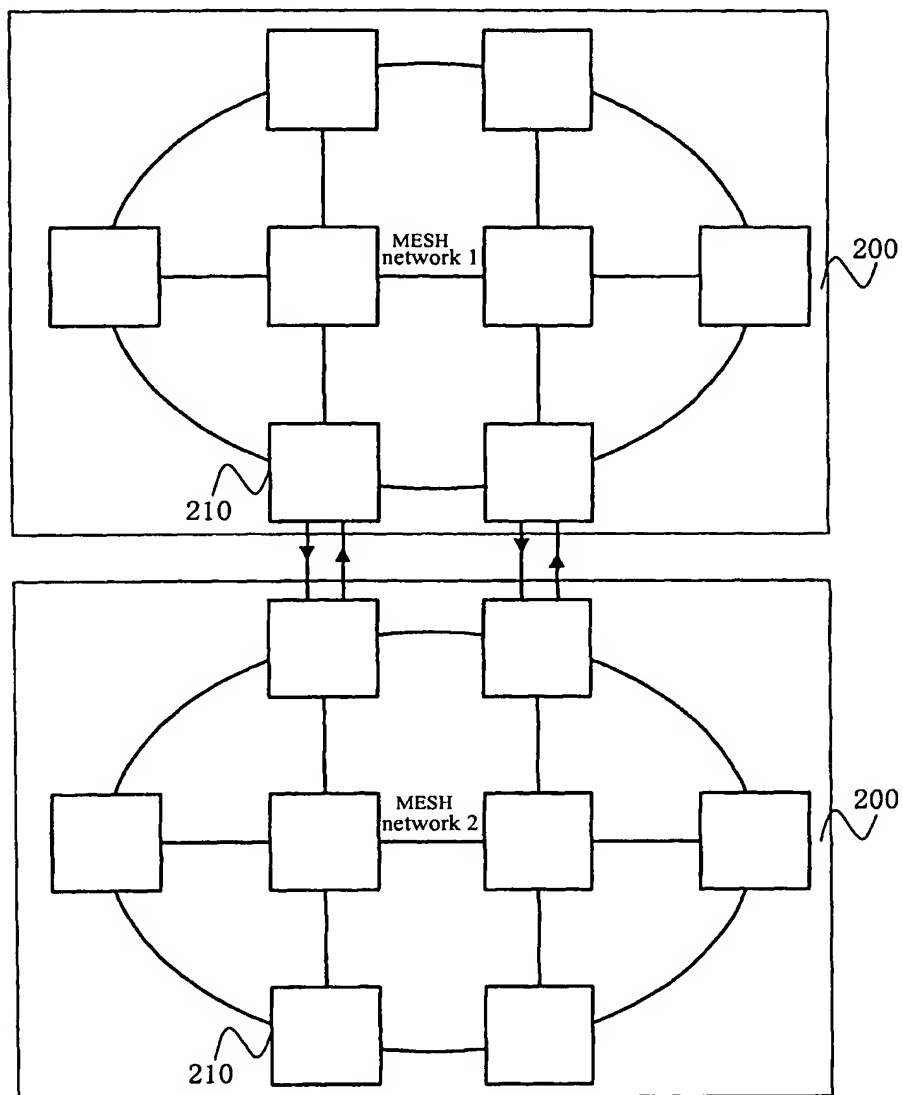
6/41



A dual-node interconnection structure between mesh networks and a ring network: Mesh-RING-Mesh

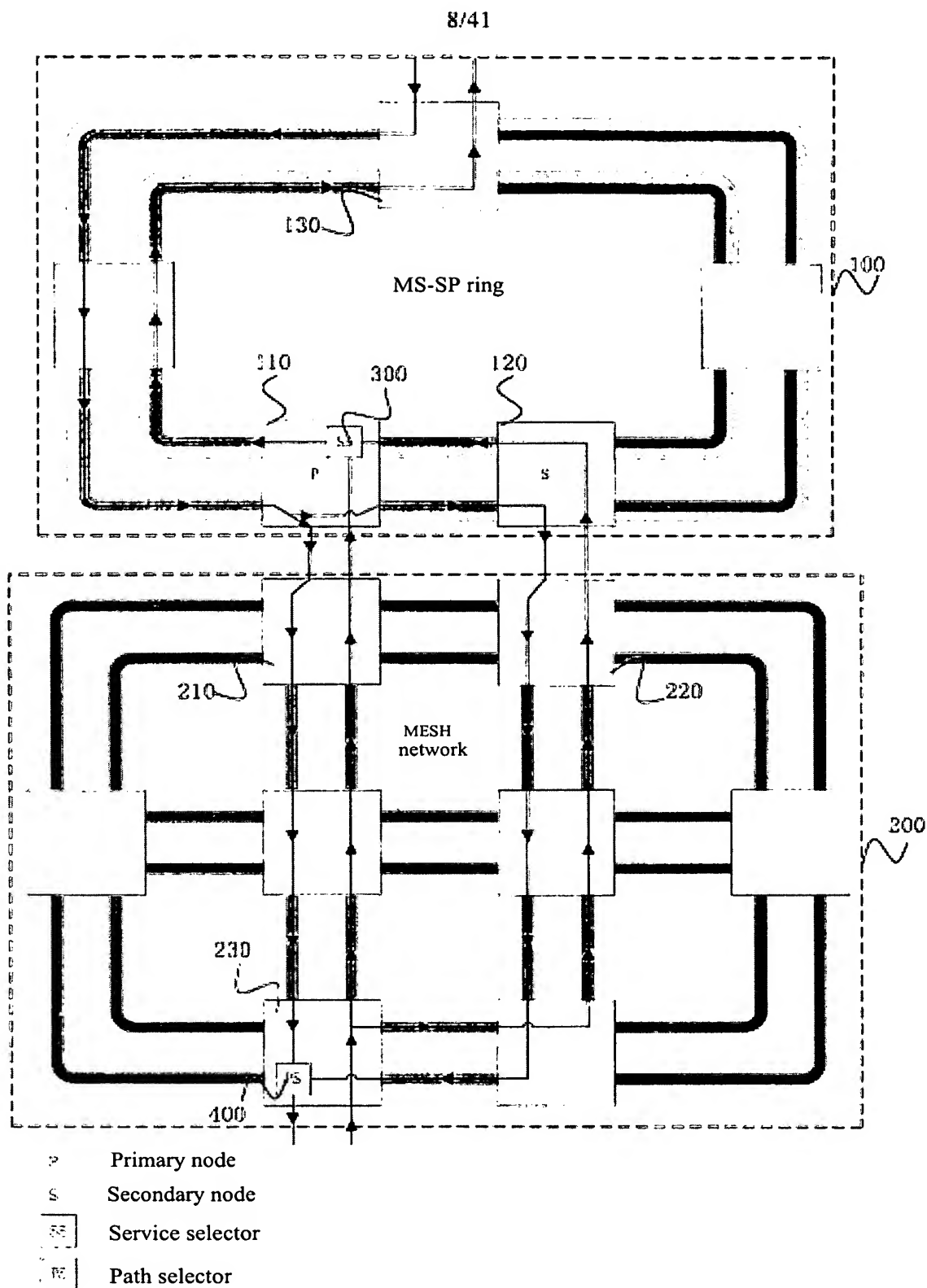
Fig. 6

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A dual-node interconnection structure between mesh networks: Mesh-Mesh

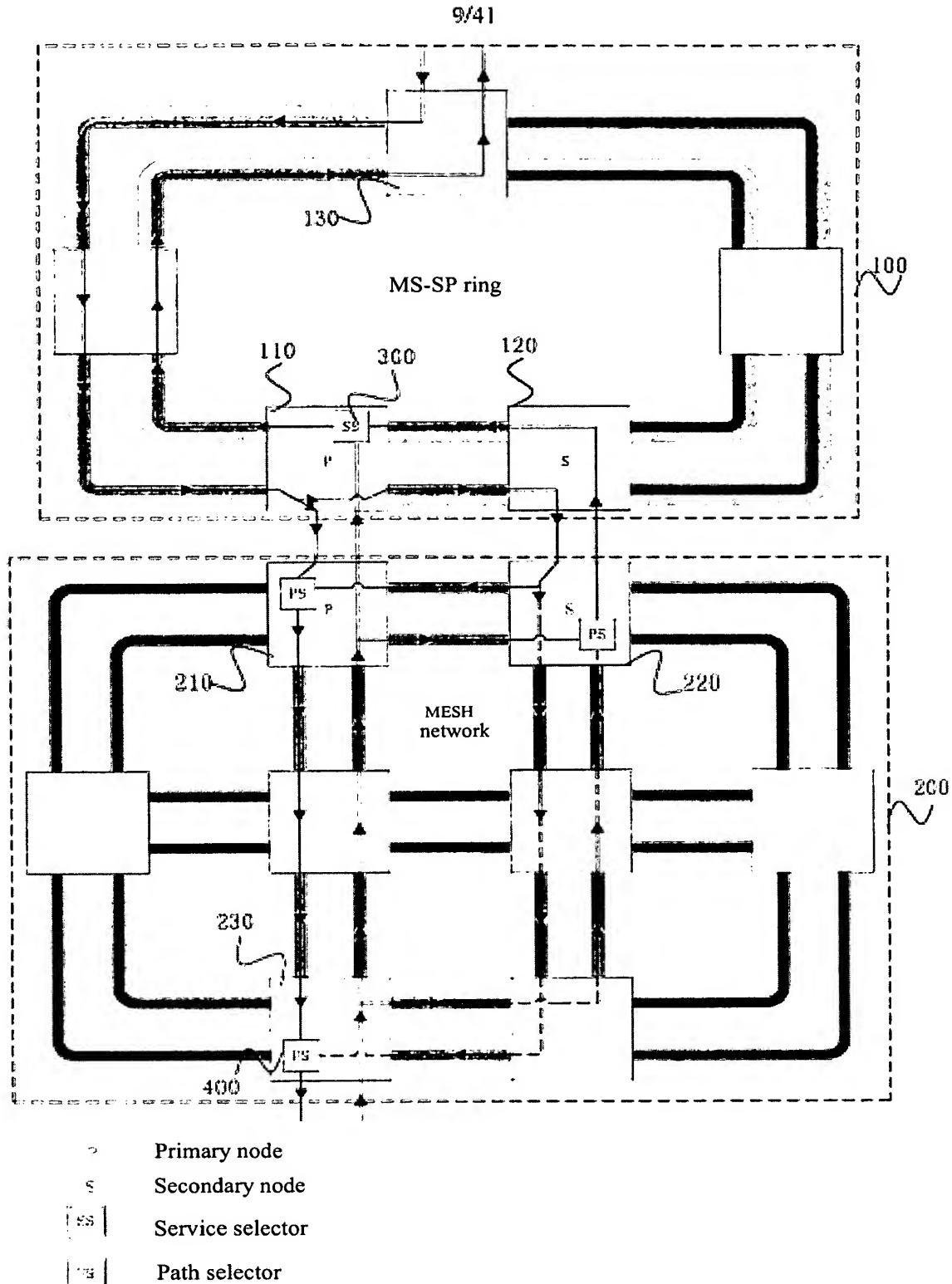
Fig. 7



A dual-node interconnection between a MS-SP ring and a mesh network with SNCP protection

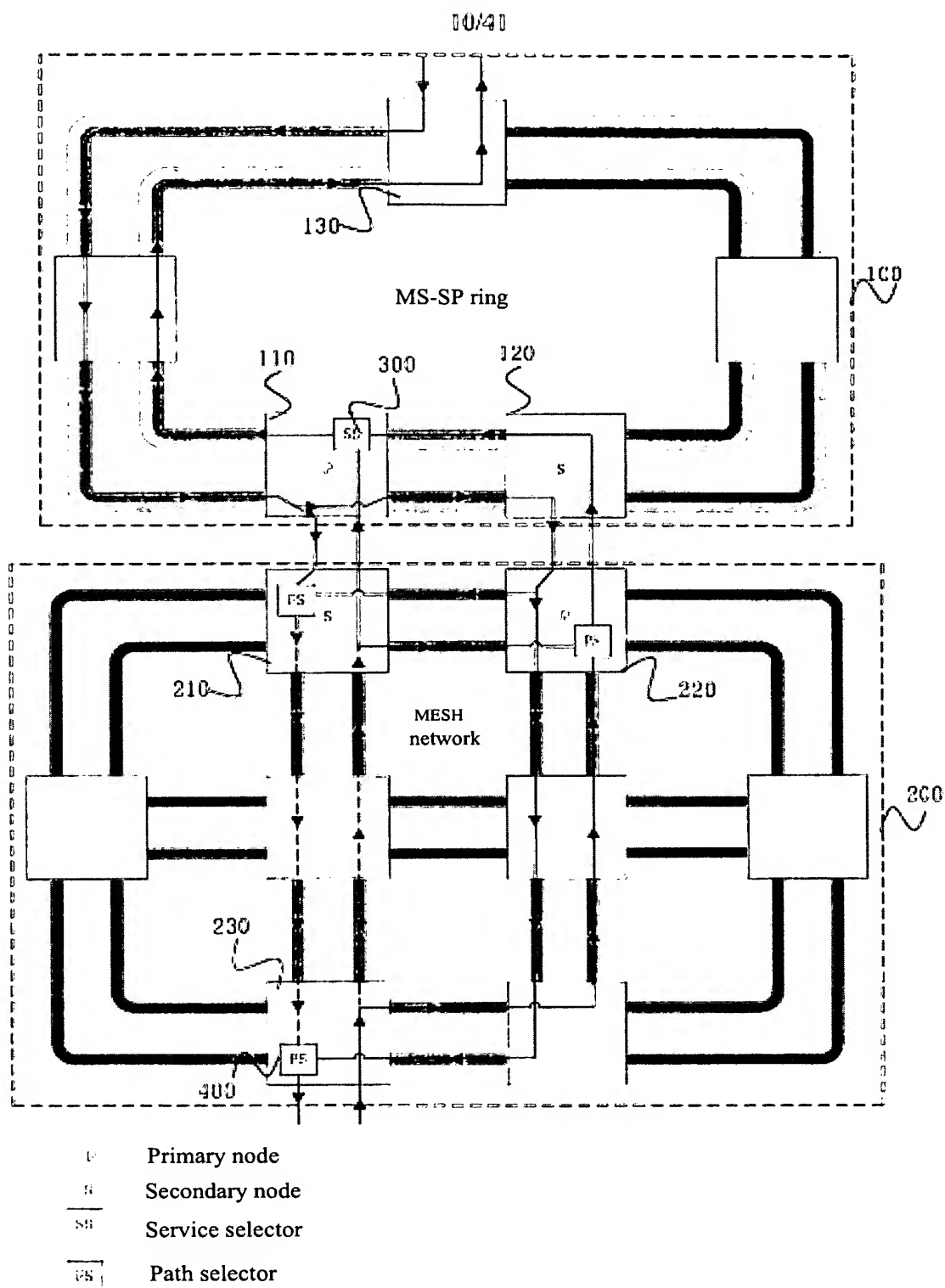
Fig. 8





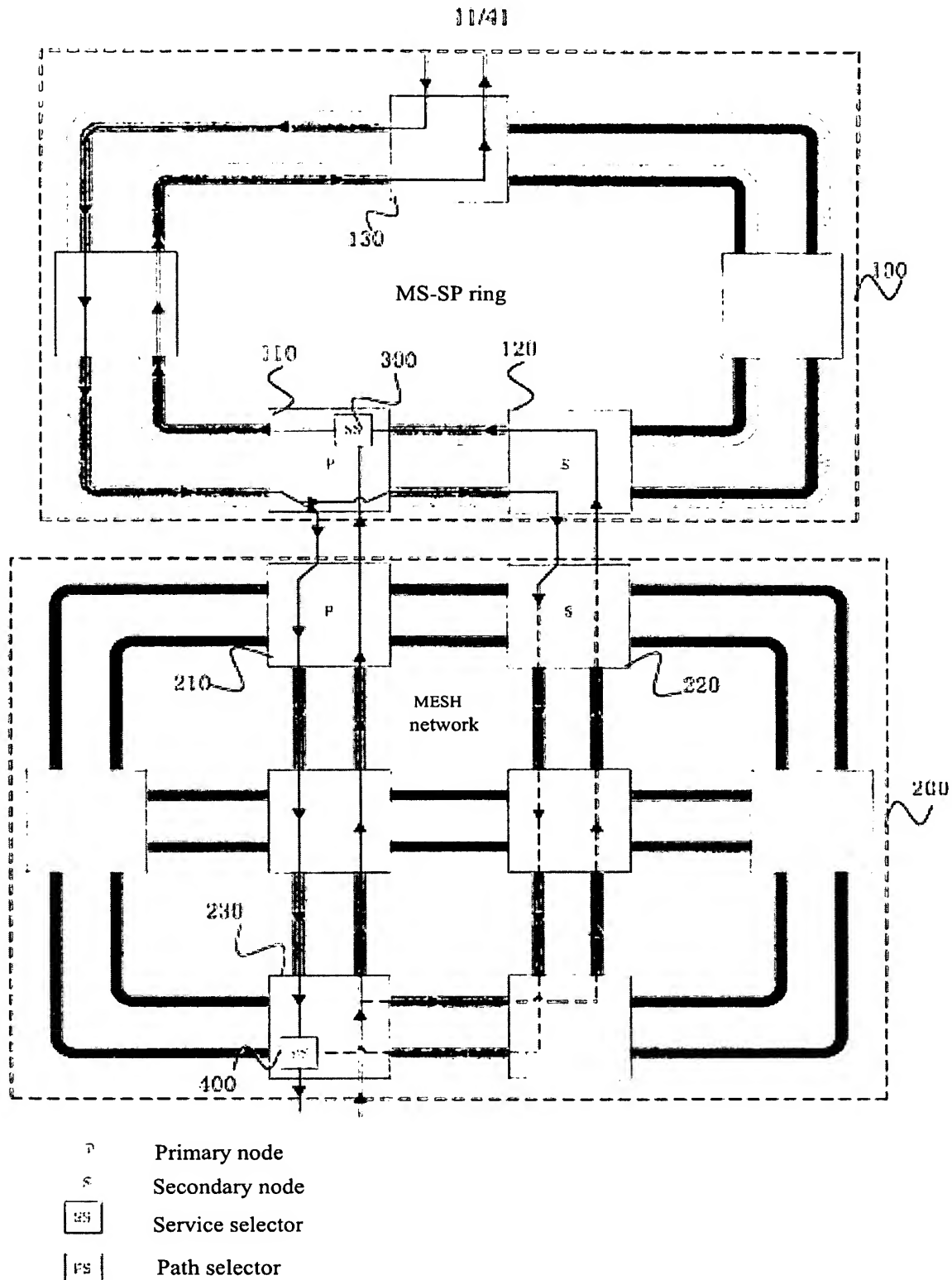
The first dual-node interconnection scheme between a MS-SP ring and a mesh network with restoration

Fig. 9



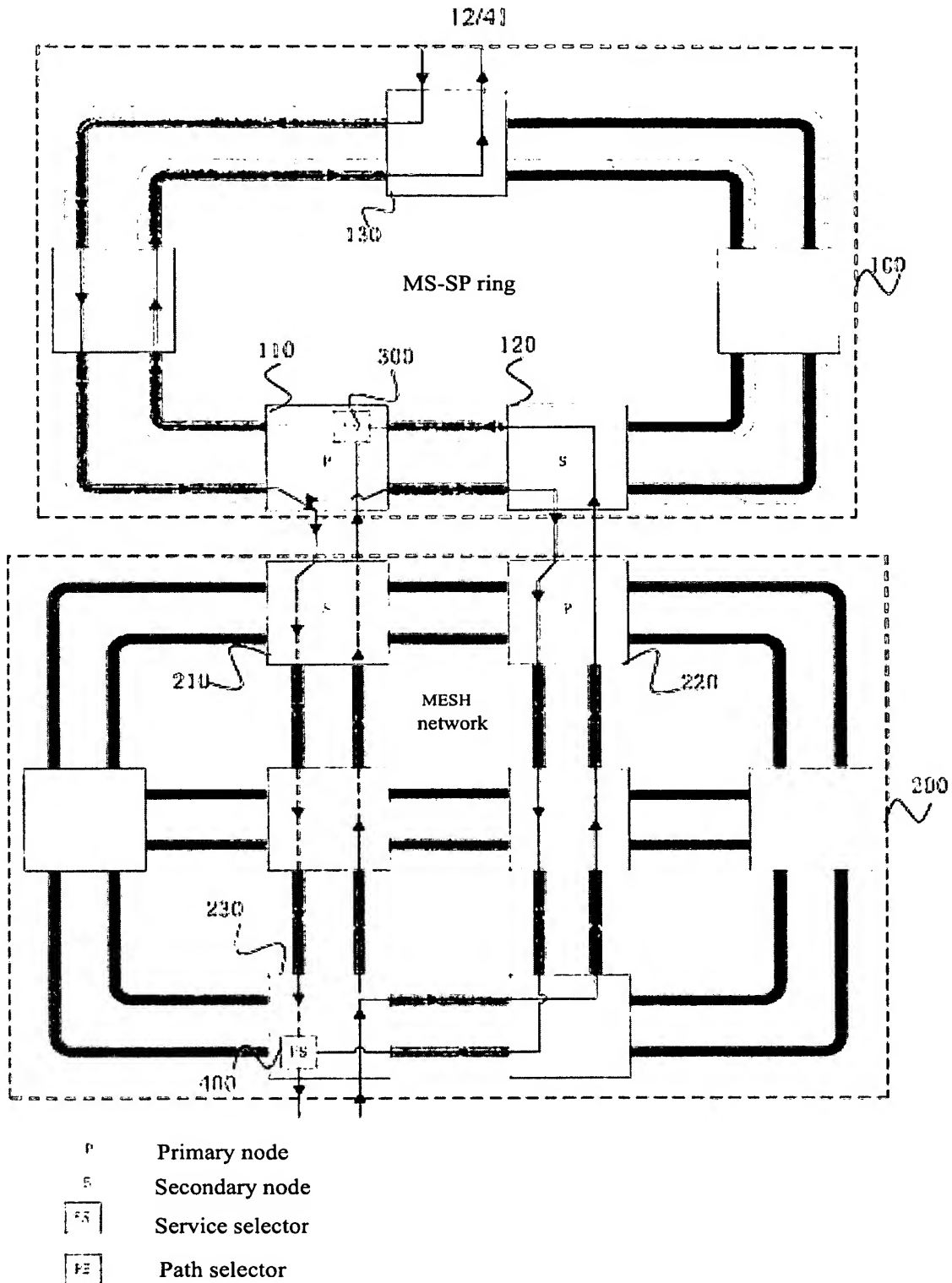
The first dual-node interconnection scheme between a mesh network with restoration and a MS-SP ring (the selection of the primary node in the mesh network is different)

Fig. 10



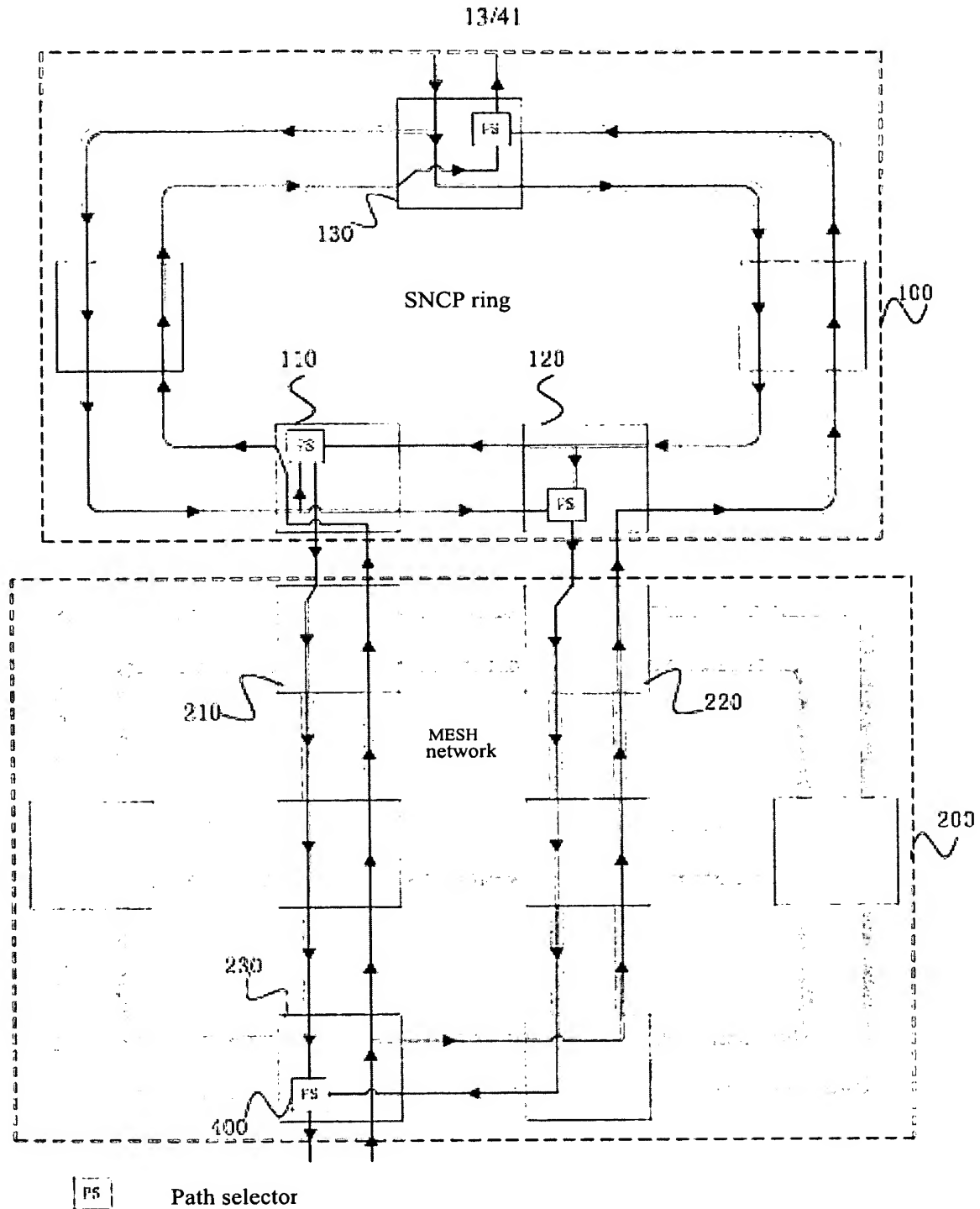
The second dual-node interconnection scheme between a mesh network with restoration and a MS-SP ring

Fig. 11



The second dual-node interconnection scheme between a mesh network with restoration and a MS-SP ring (the selection of the primary node in the mesh network is different)

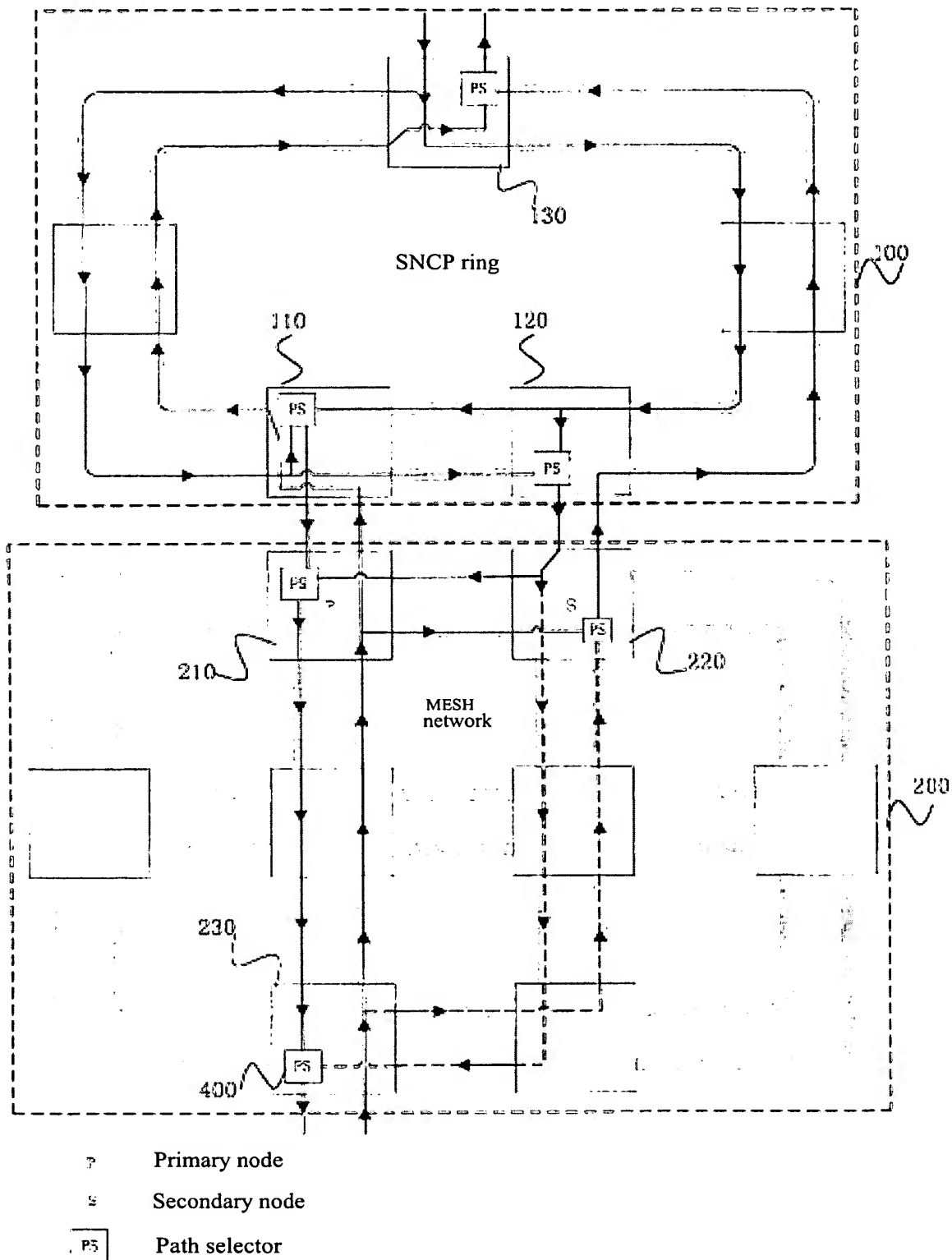
Fig. 12



A dual-node interconnection between a mesh network and a ring network both with SNCF

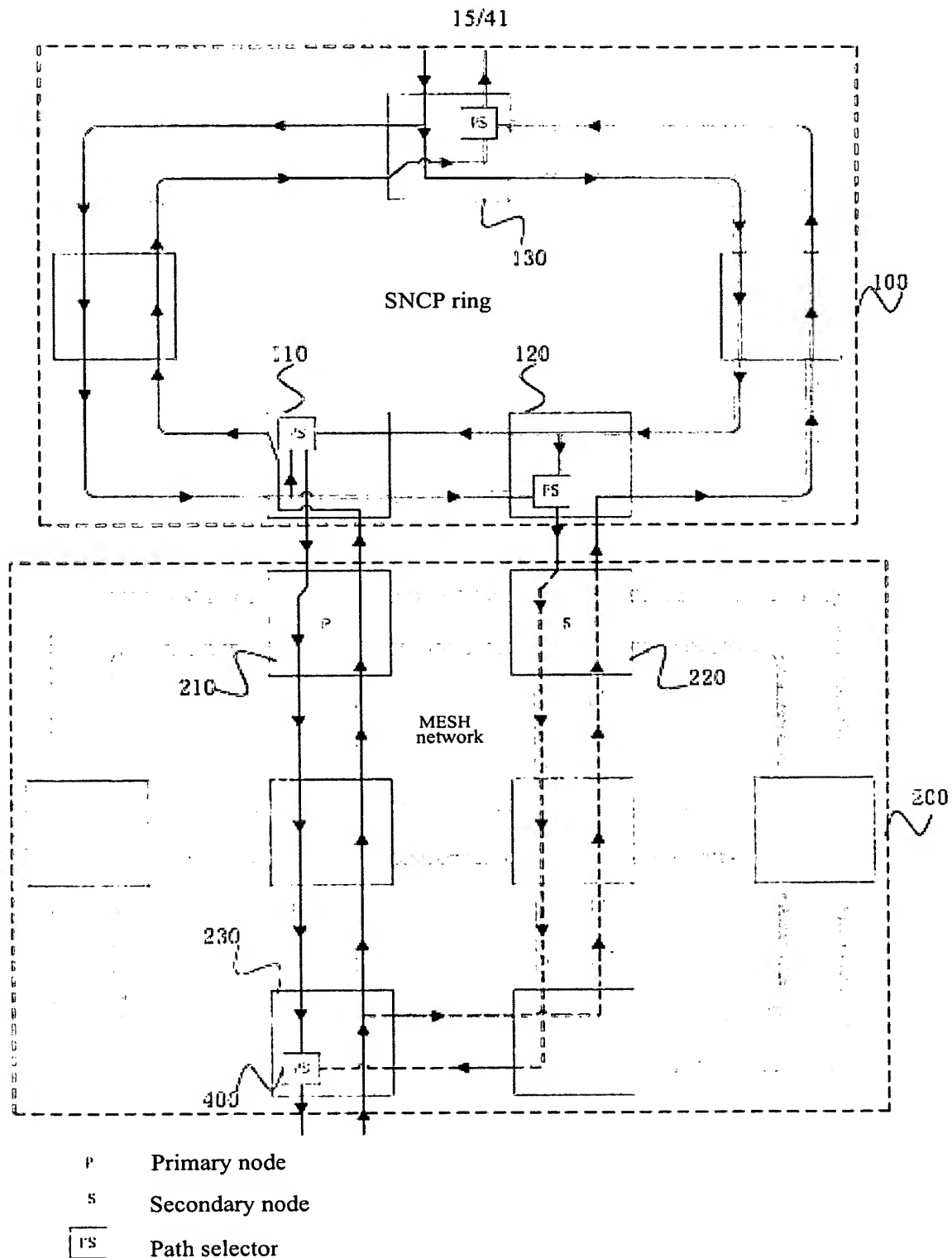
Fig. 13

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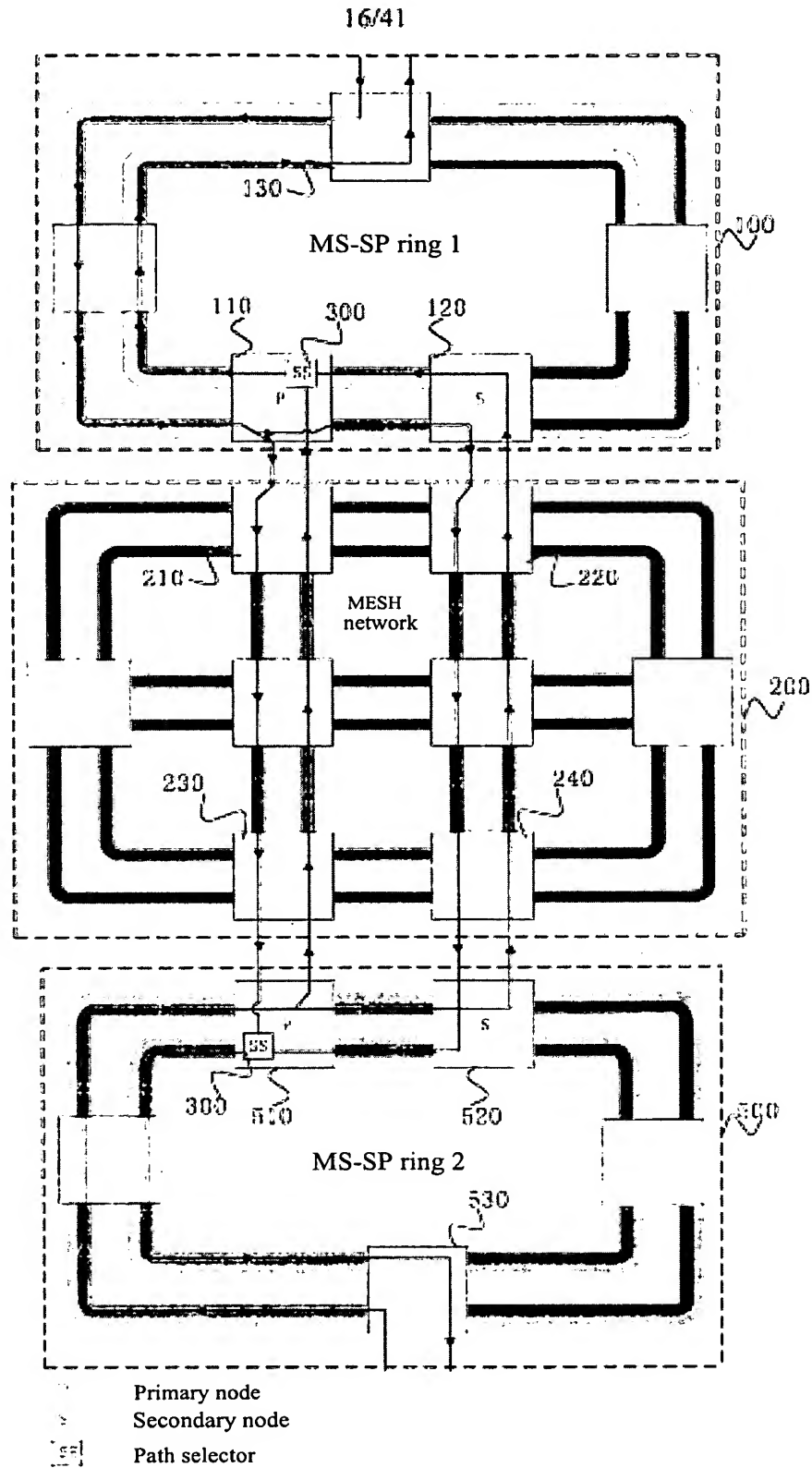
The first dual-node interconnection scheme between a mesh network with restoration and a SNCP ring

Fig. 14



The second dual-node interconnection scheme between a mesh network with restoration and a SNCP ring

Fig. 15

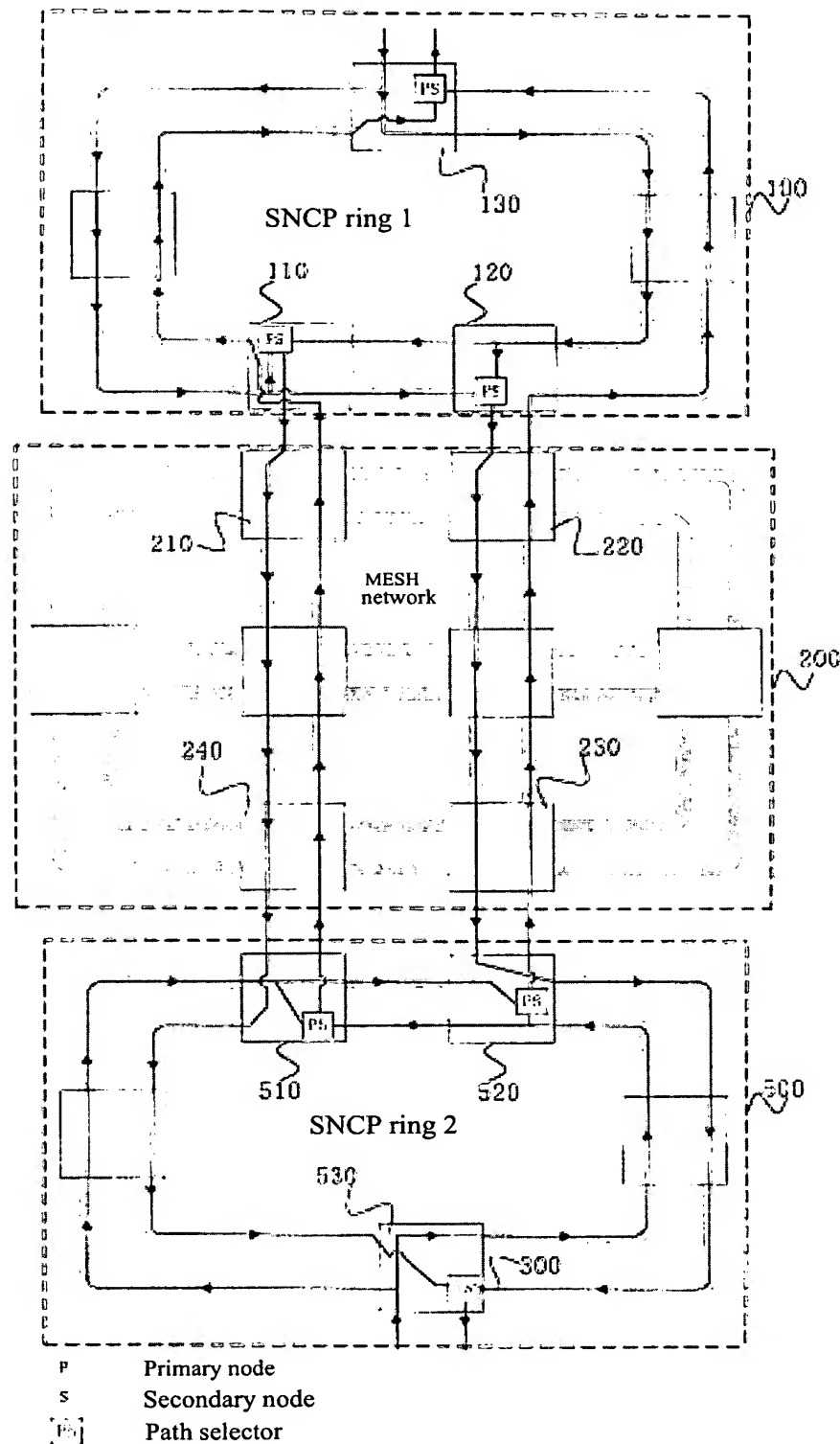


A dual-node interconnection between MS-SP rings and a mesh network without protection in a ring-mesh-ring situation

Fig. 16



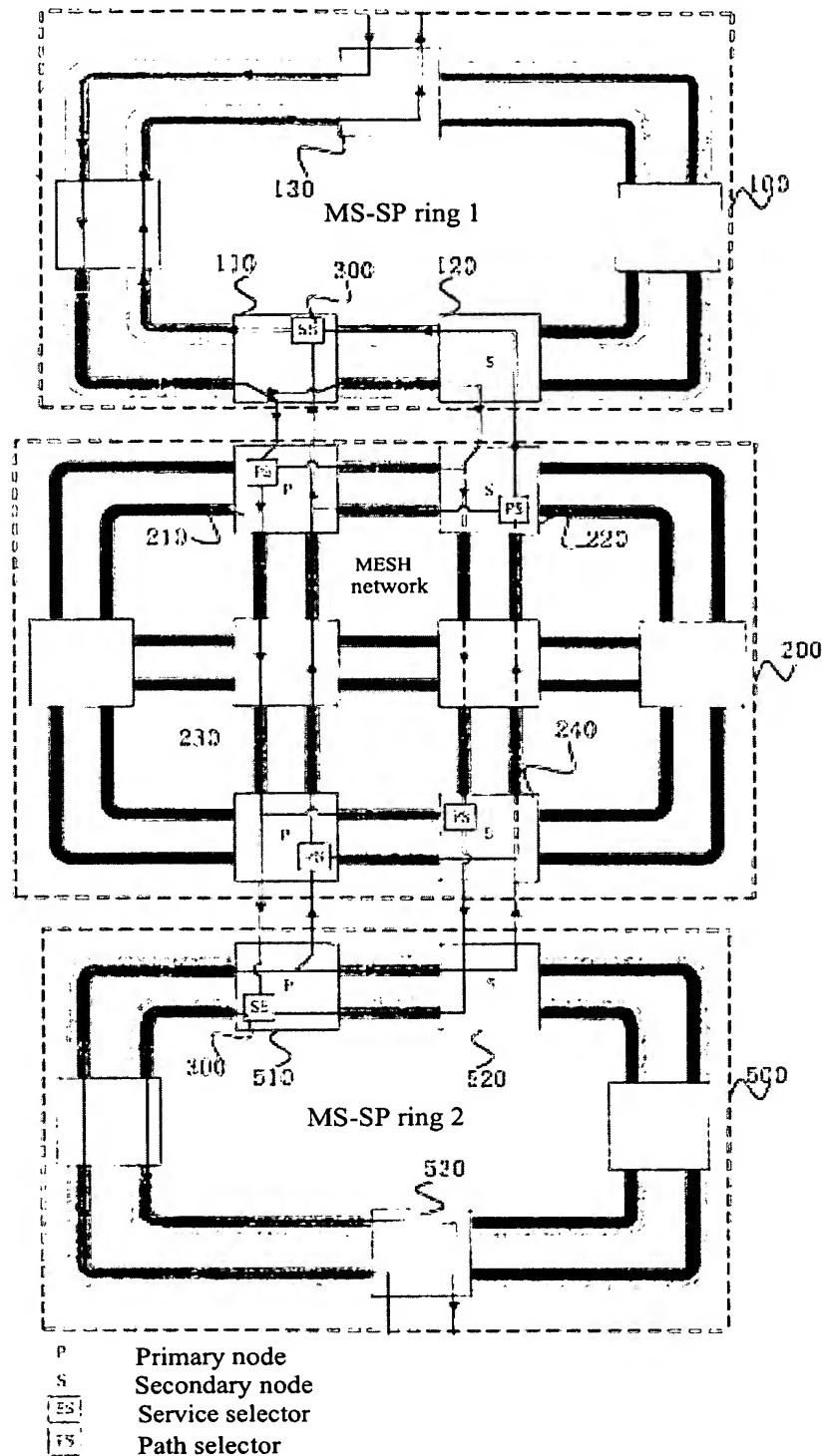
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A dual-node interconnection between SNCP rings and a mesh network without protection in a ring-mesh-ring situation

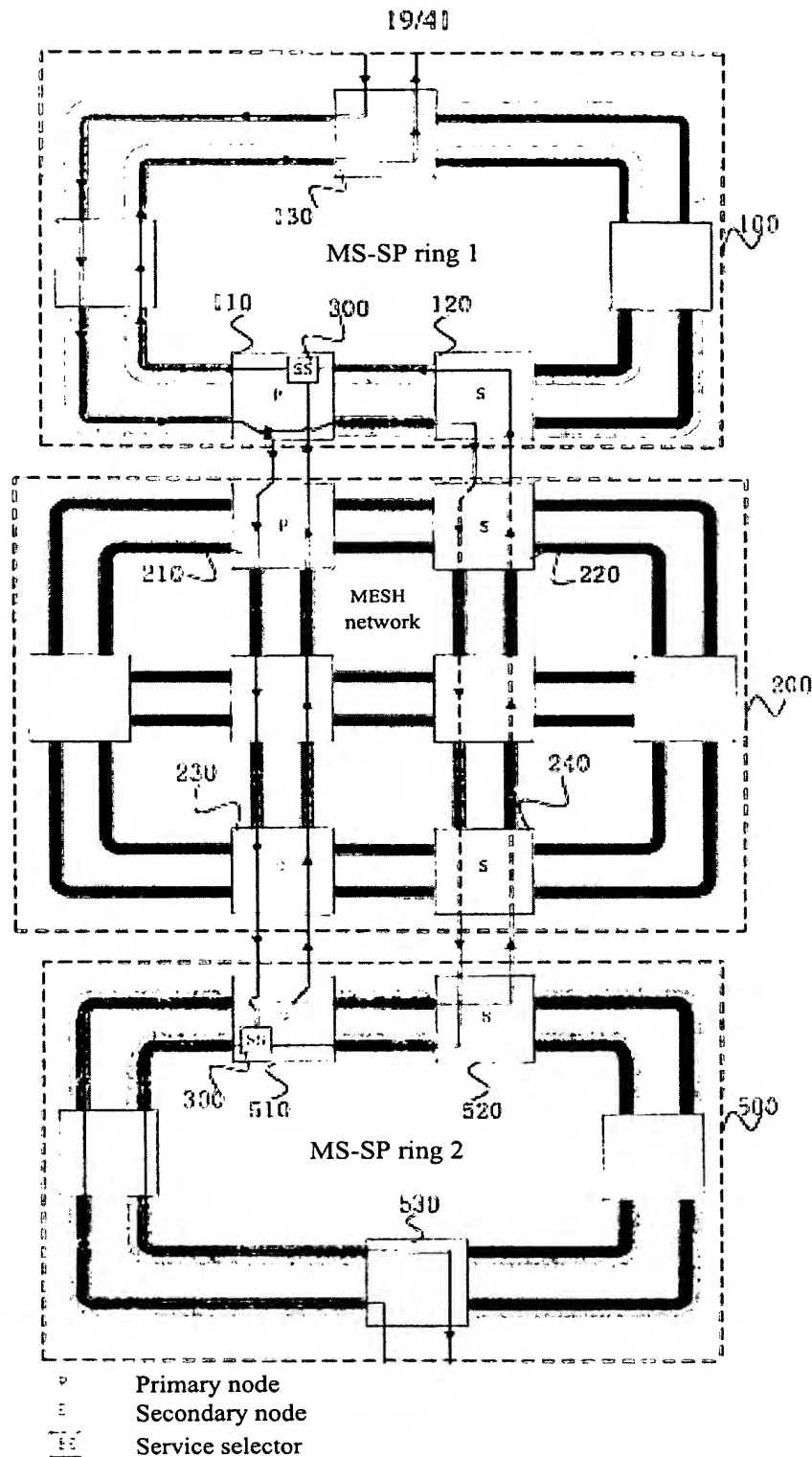
Fig. 17

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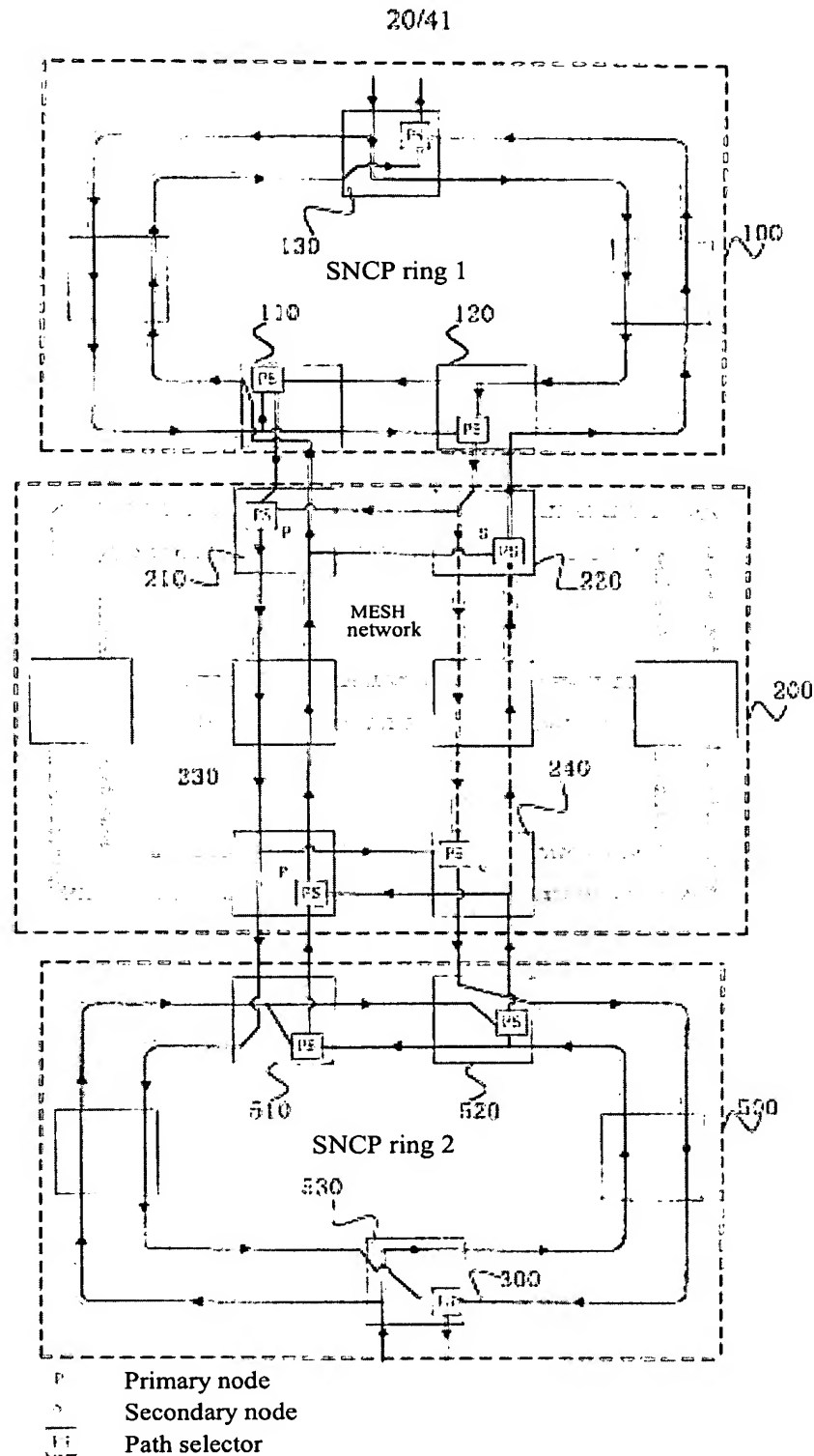
The first dual-node interconnection scheme between MS-SP rings and a mesh network with restoration in a ring-mesh-ring situation

Fig. 18



The second dual-node interconnection scheme between MS-SP rings and a mesh network with restoration in a ring-mesh-ring situation

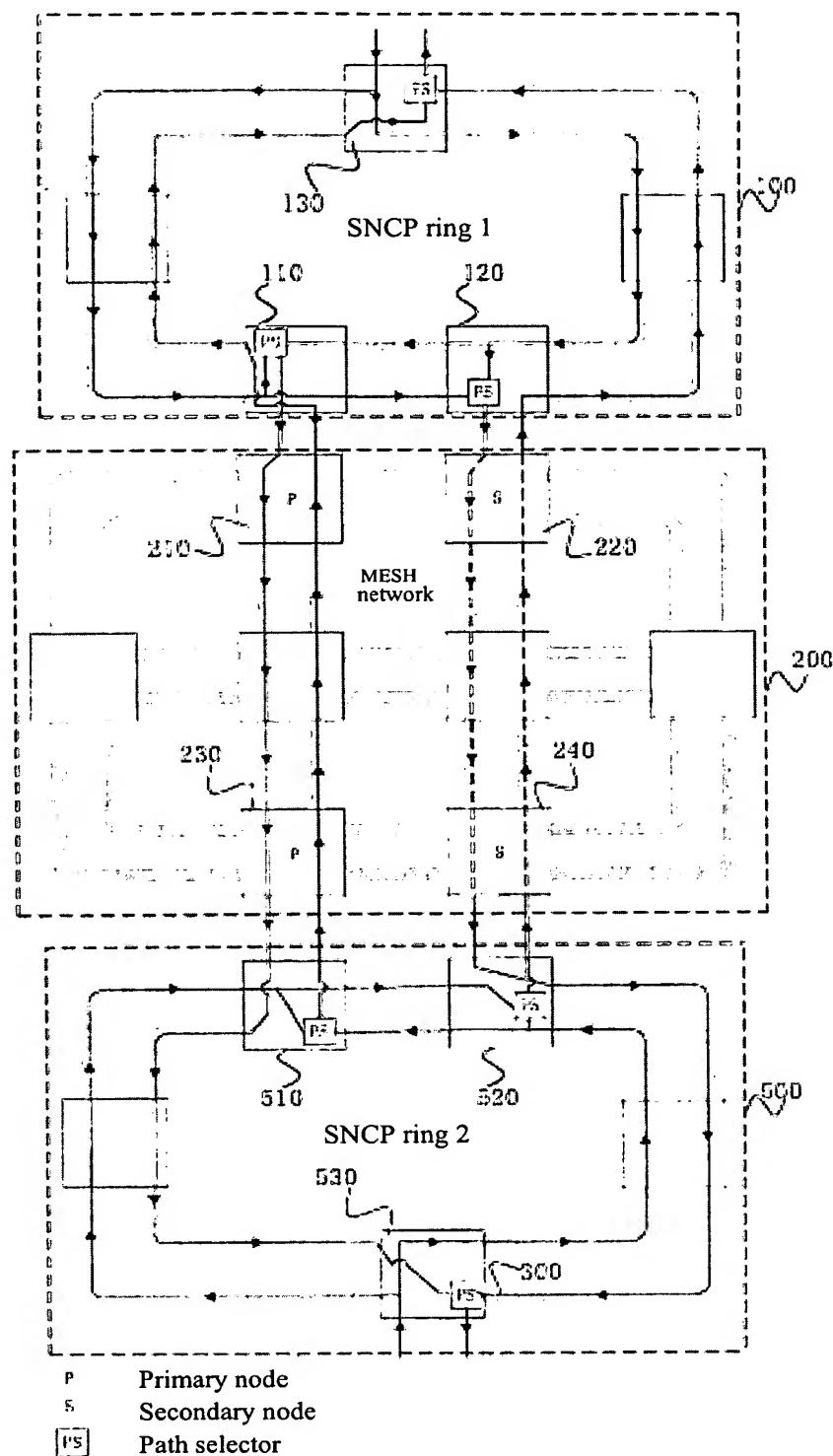
Fig. 19



The first dual-node interconnection scheme between SNCP rings and a mesh network with restoration in a ring-mesh-ring situation

Fig 20

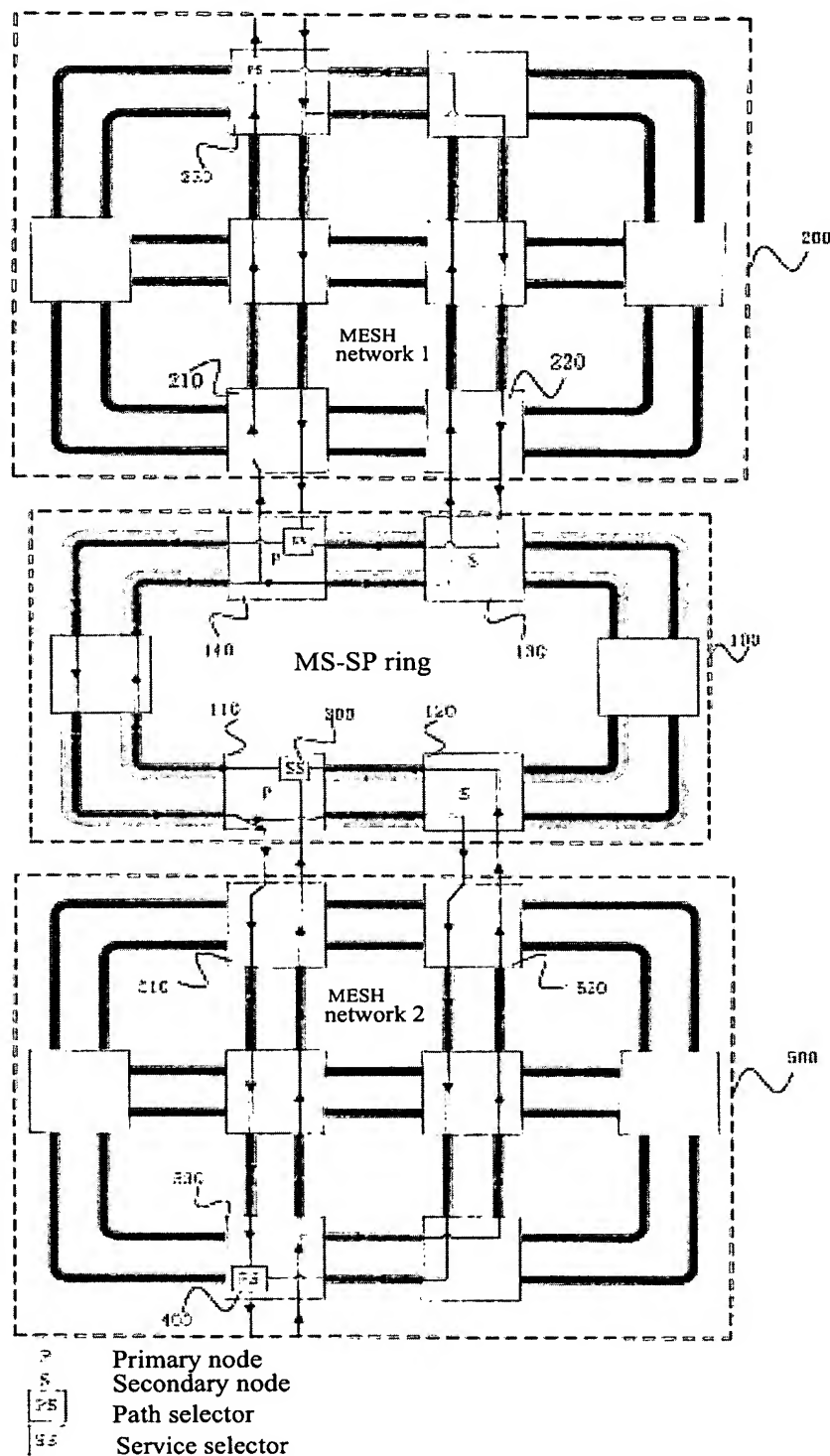
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The second dual-node interconnection scheme between SNCP rings and a mesh network with restoration in a ring-mesh-ring situation

Fig. 31

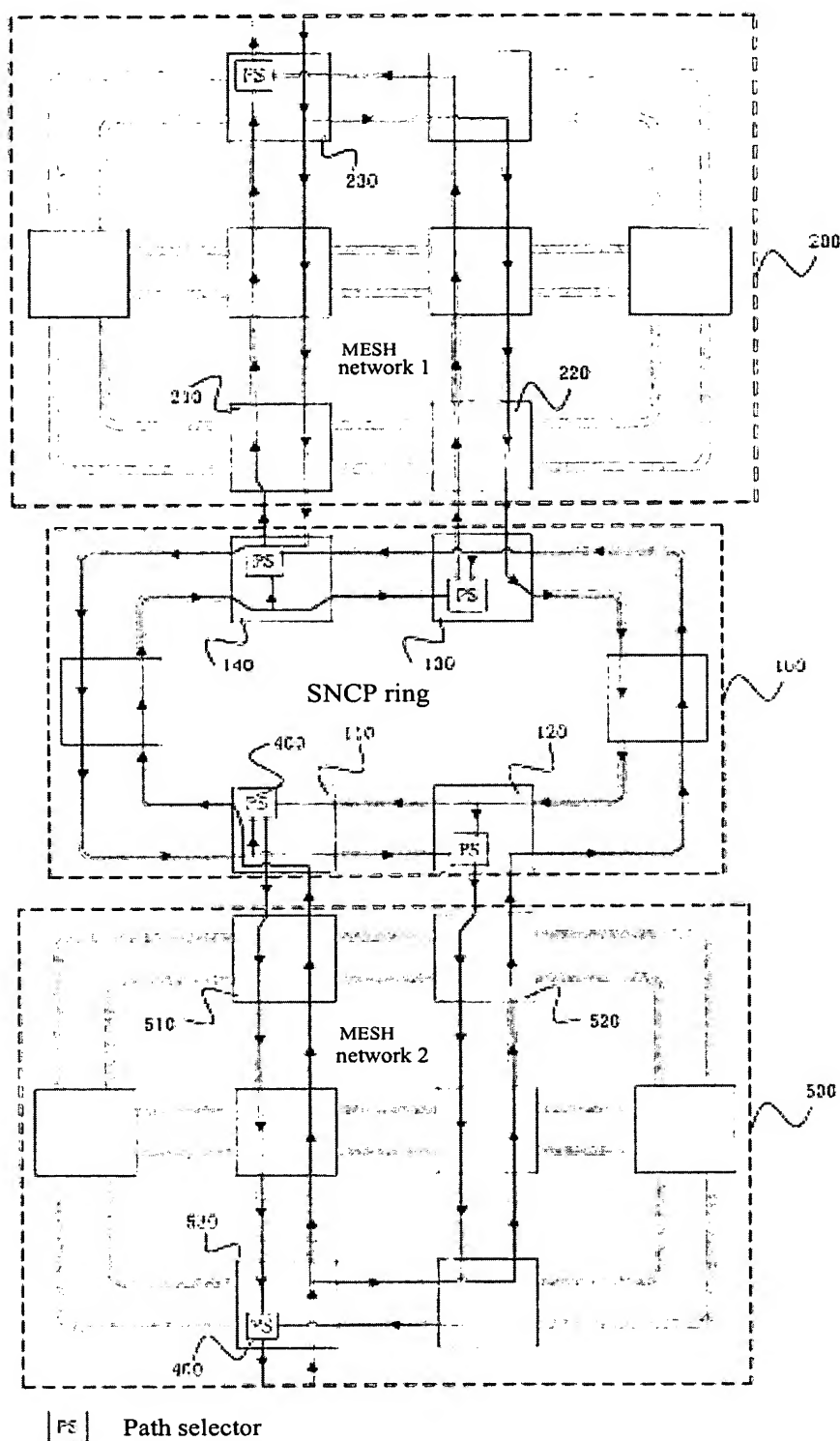
22/41



A dual-node interconnection between a MS-SP ring and mesh networks with SNCP in a mesh-ring-mesh situation

Fig. 22

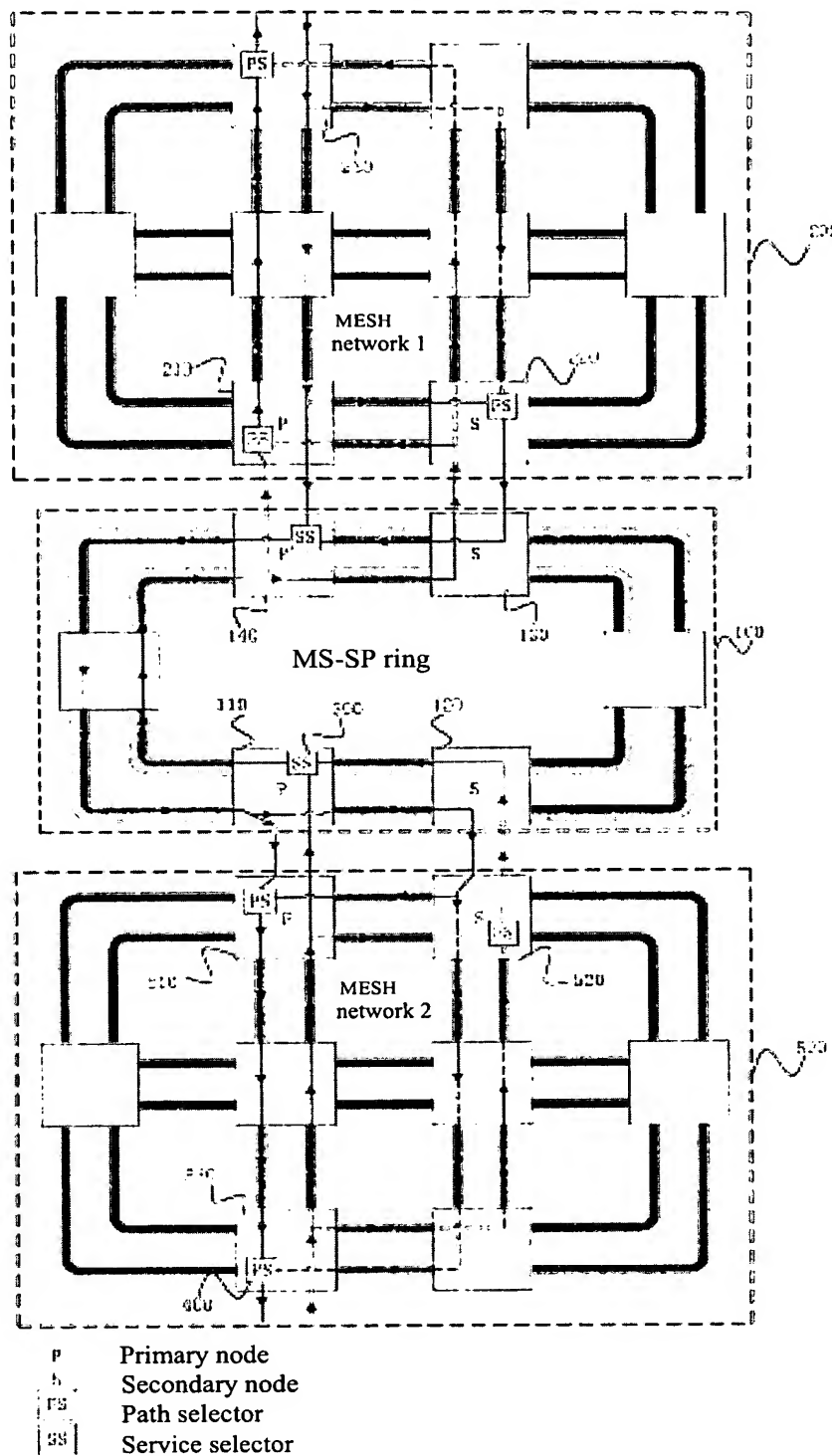
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A dual-node interconnection between a SNCP ring and mesh networks with SNCP in a mesh-ring-mesh situation

Fig. 23

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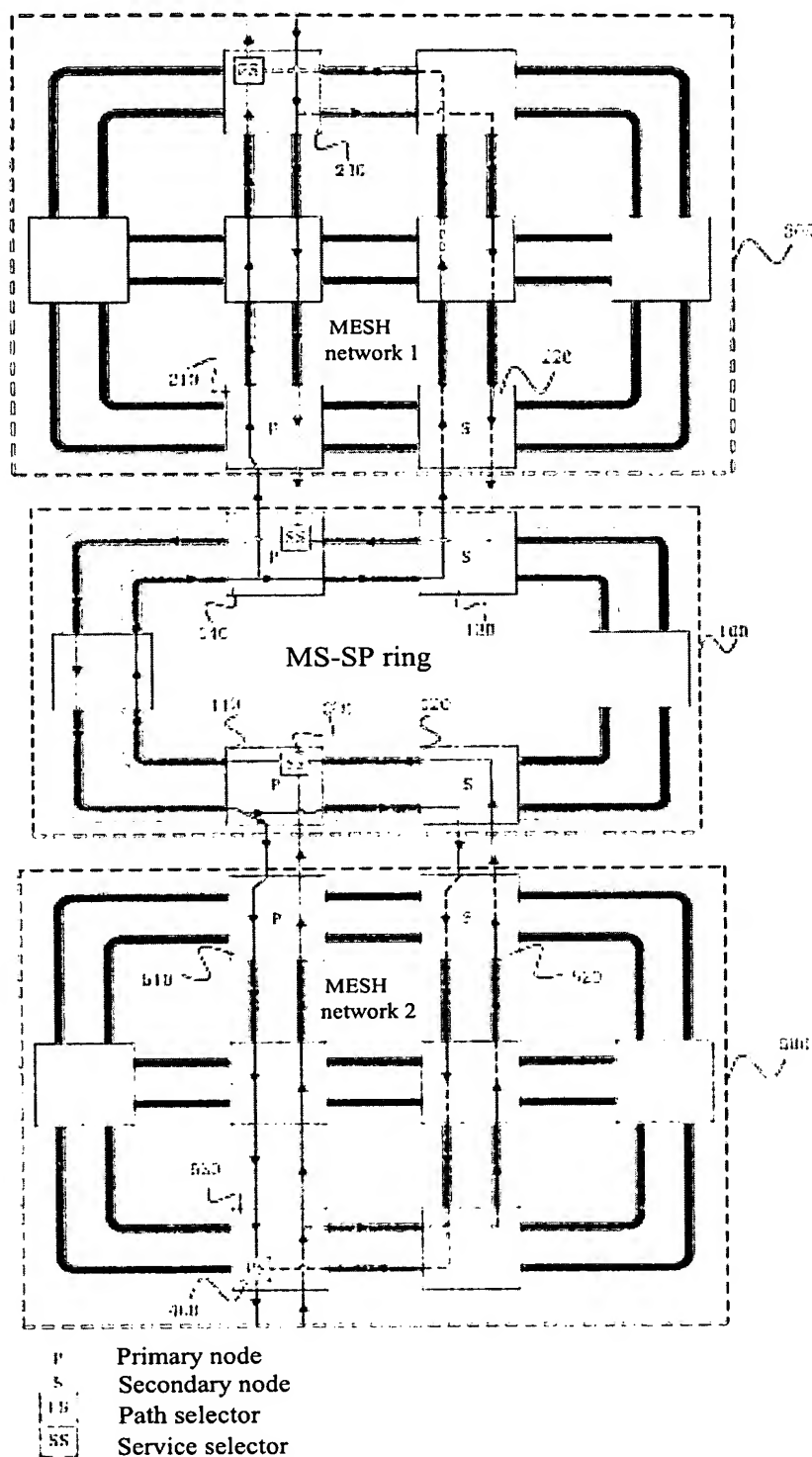


The first dual-node interconnection scheme between a MS-SP ring and mesh networks with restoration in a mesh-ring-mesh situation

Fig. 24

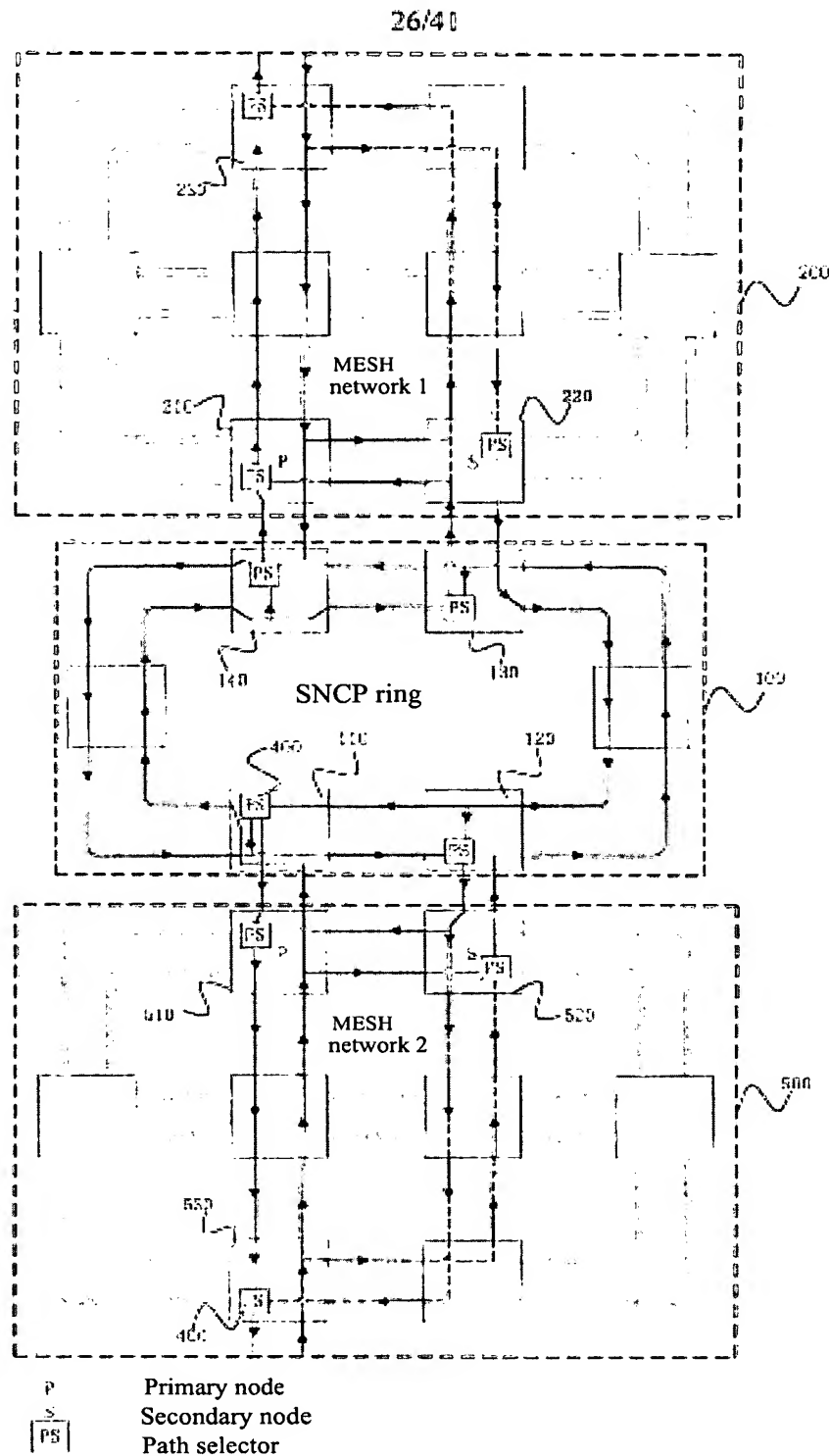


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The second dual-node interconnection scheme between a MS-SP ring and mesh networks with restoration in a mesh-ring-mesh situation

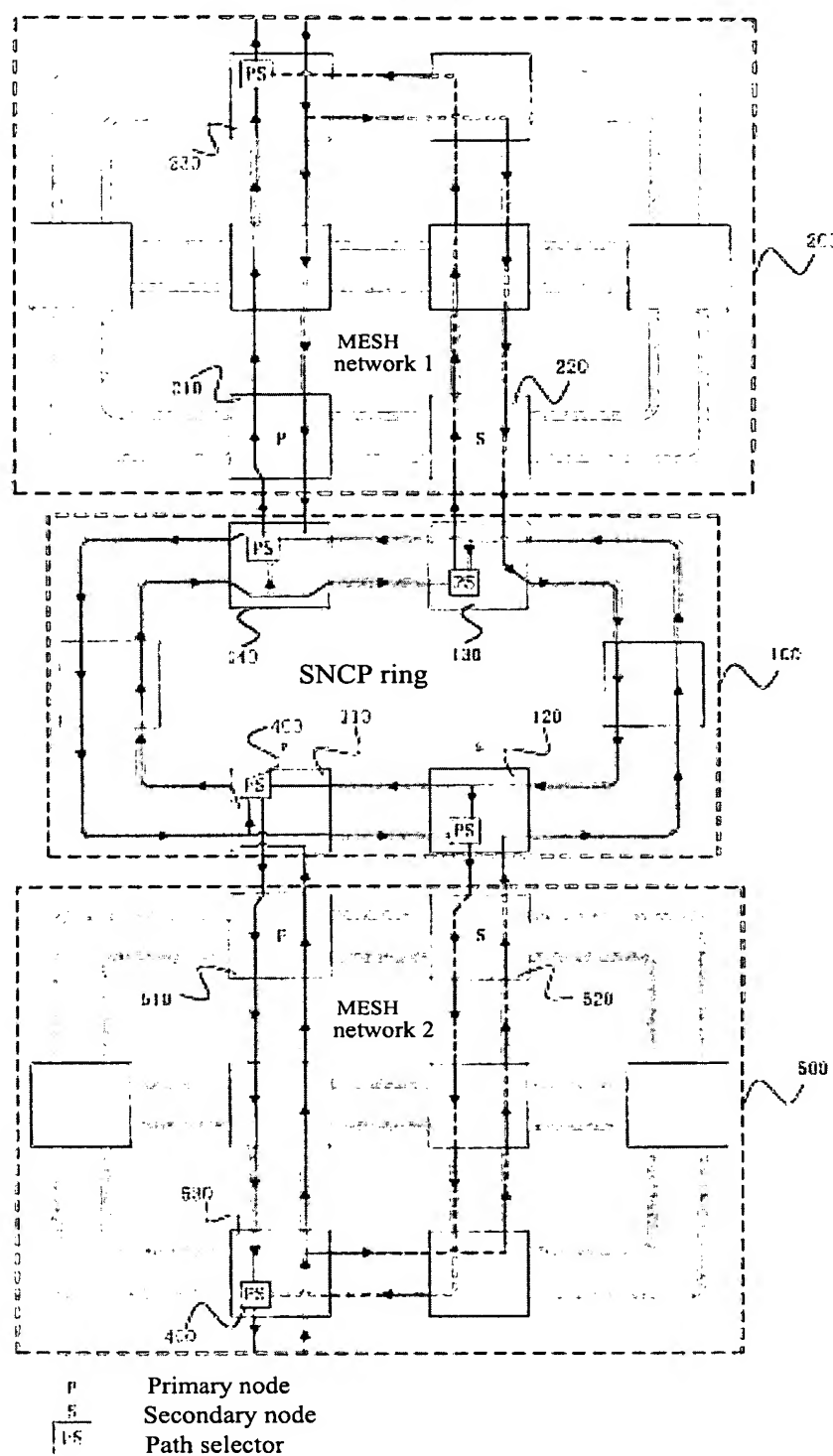
Fig. 25



The first dual-node interconnection scheme between a SNCP ring and mesh networks with restoration in a mesh-ring-mesh situation

Fig. 26

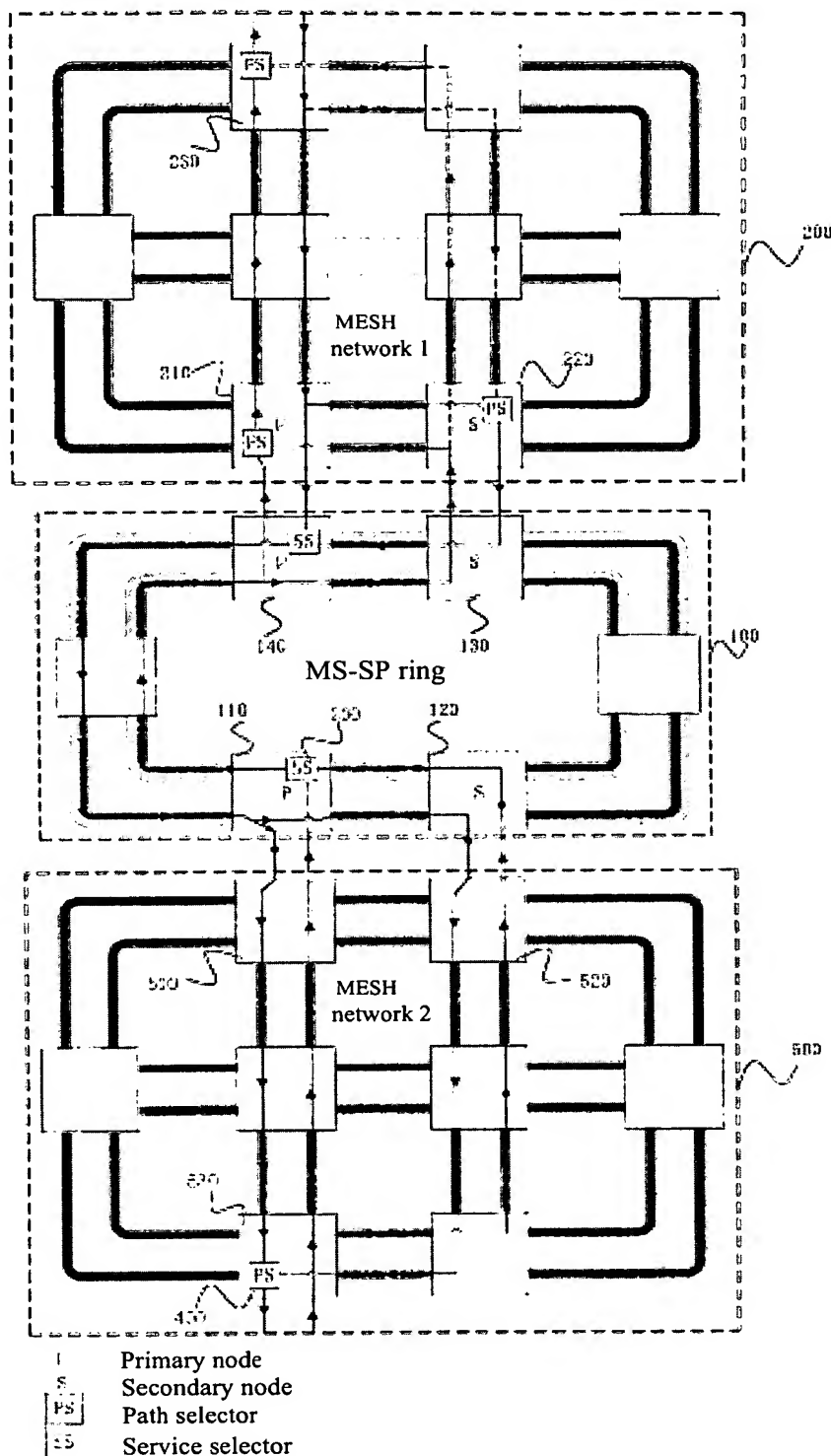
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The second dual-node interconnection scheme between a SNCP ring and mesh networks with restoration in a mesh-ring-mesh situation

Fig. 27

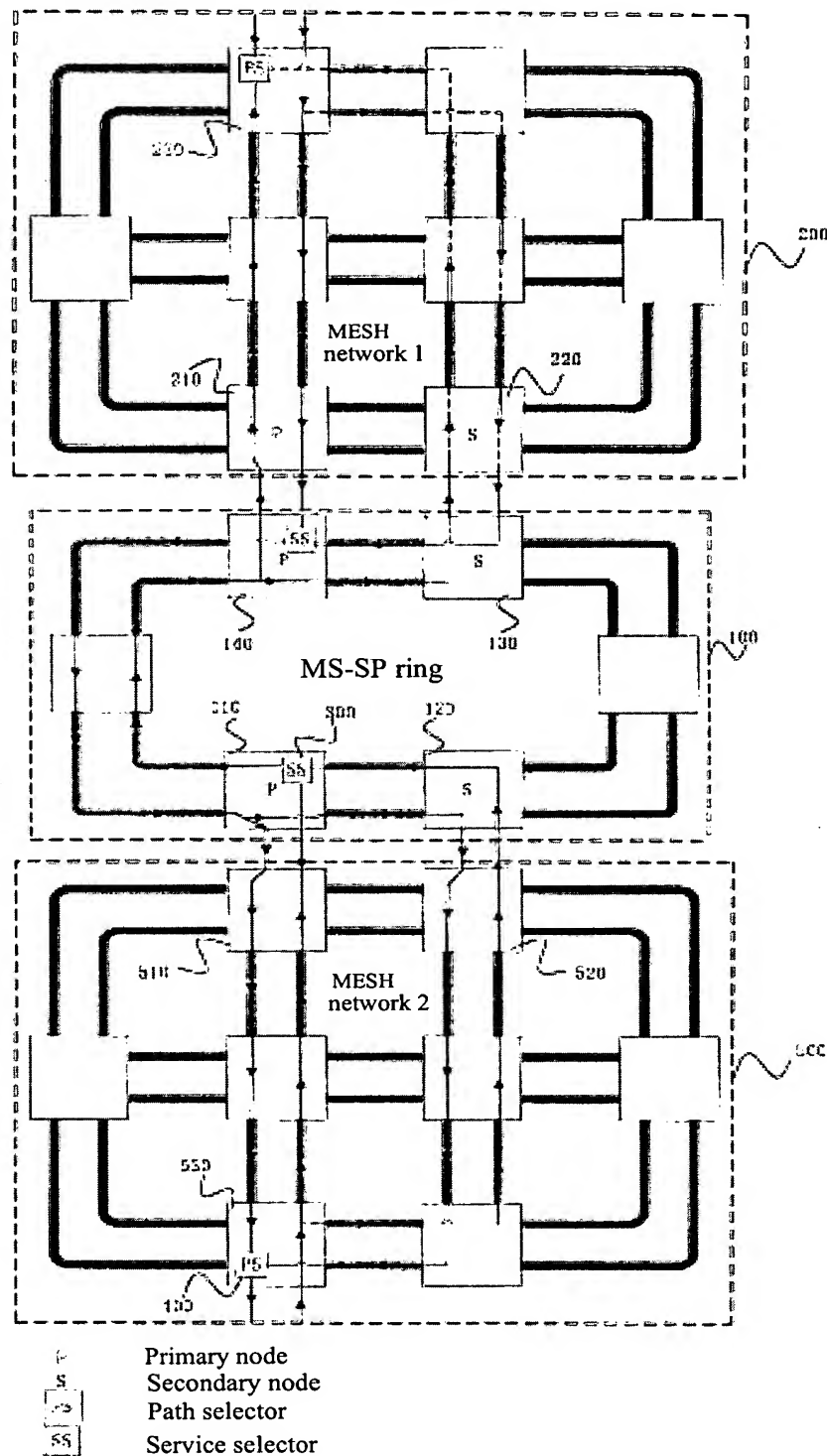
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The first dual-node interconnection scheme between a mesh network with restoration and a mesh network with SNCP via a MS-SP ring in a mesh-ring-mesh situation

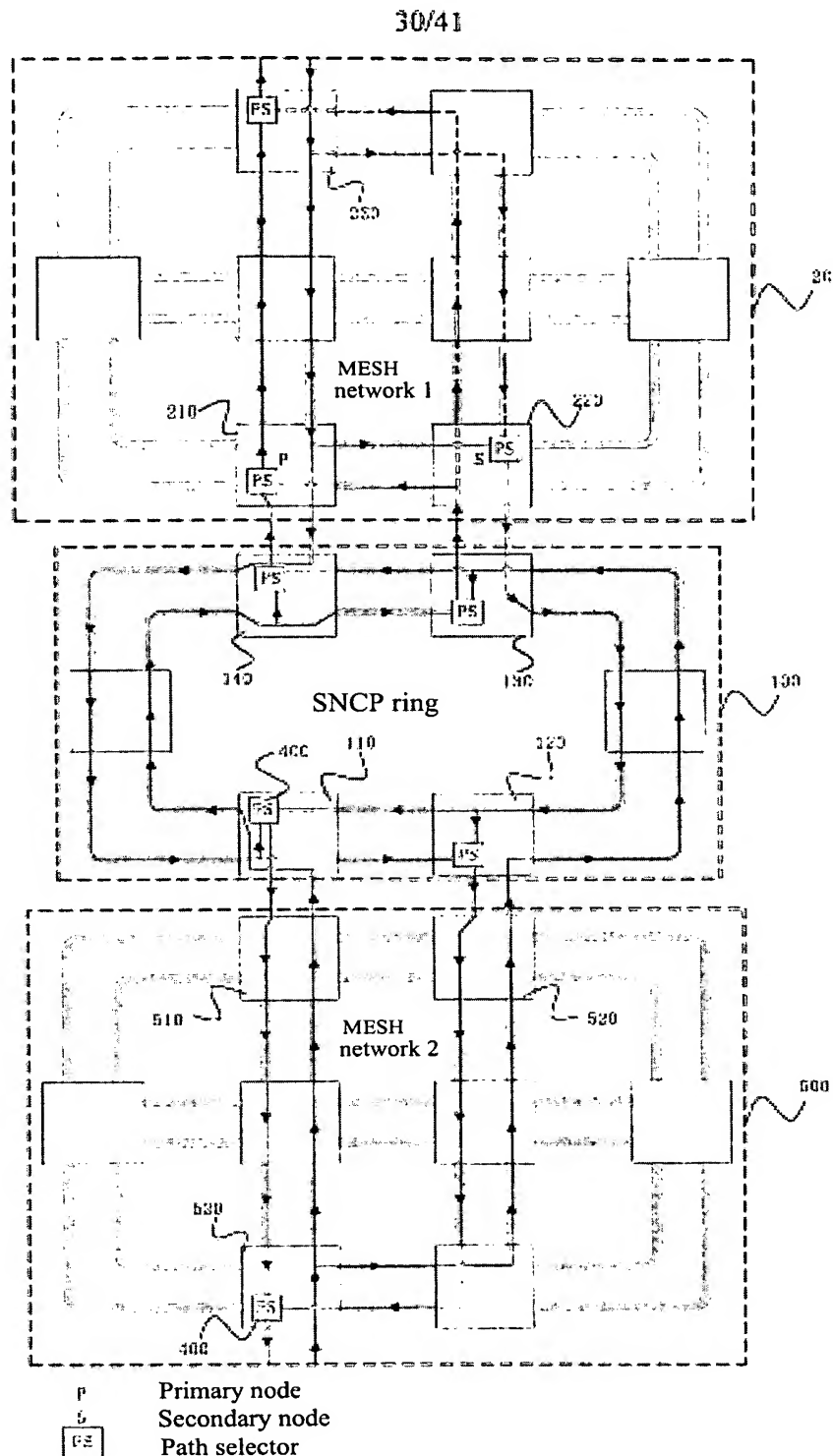
Fig. 28

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The second dual-node interconnection scheme between a mesh network with restoration and a mesh network with SNCP via a MS-SP ring in a mesh-ring-mesh situation

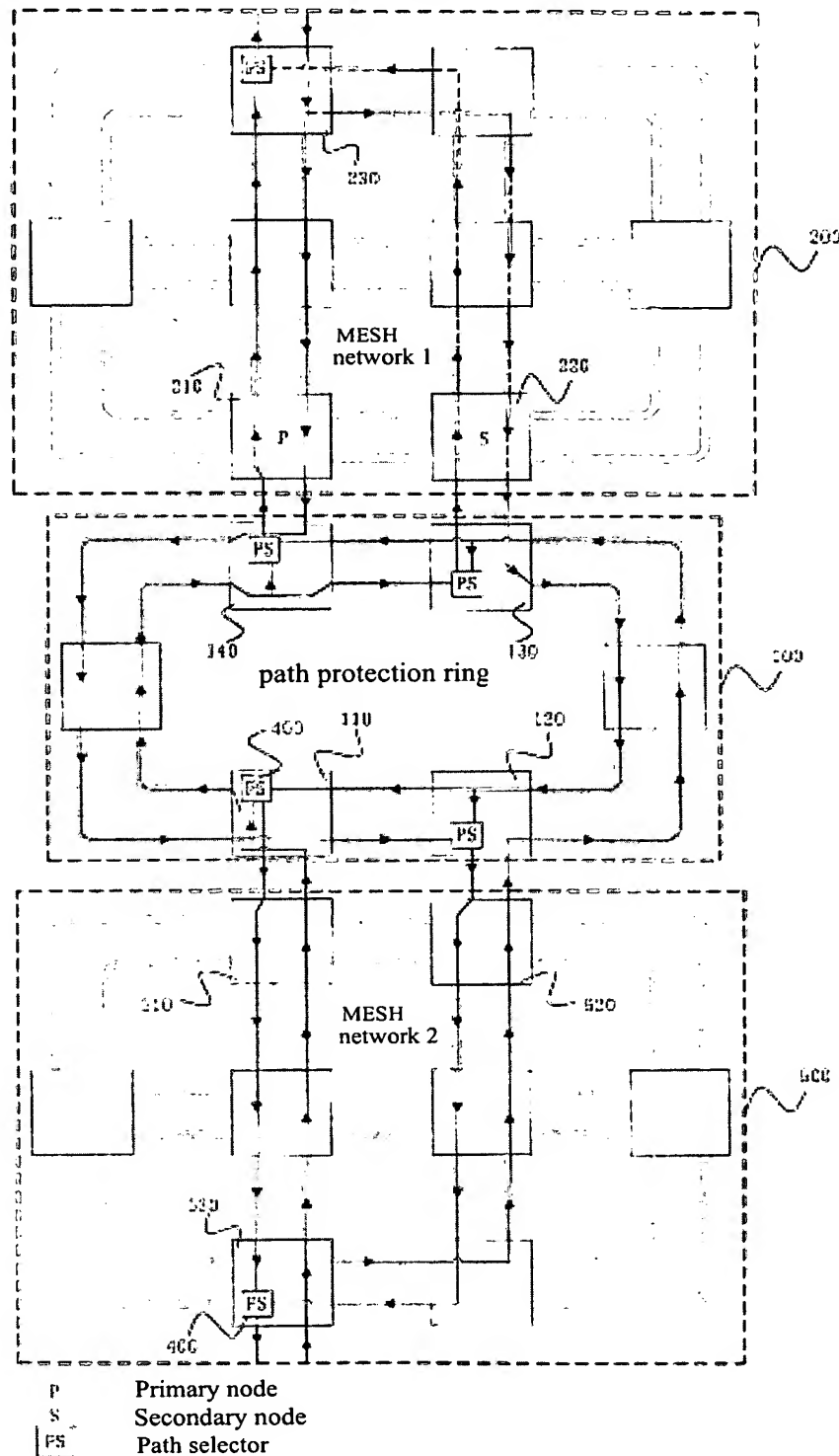
Fig. 29



The first dual-node interconnection scheme between a mesh network with restoration and a mesh network with SNCP via a SNCP ring in a mesh-ring-mesh situation

Fig. 30

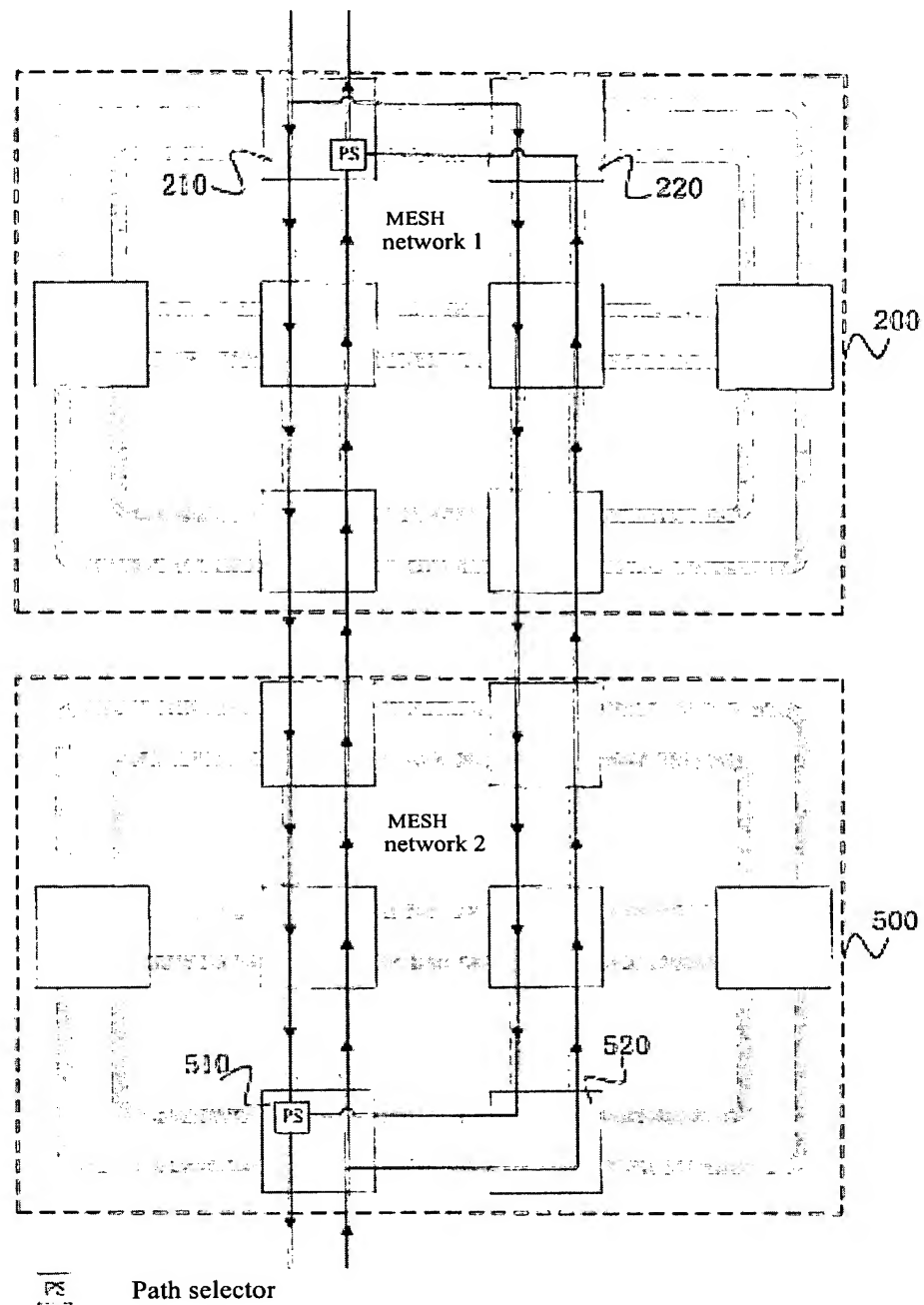
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The second dual-node interconnection scheme between a mesh network with restoration and a mesh network with SNCP via a SNCP ring in a mesh-ring-mesh situation

Fig. 31

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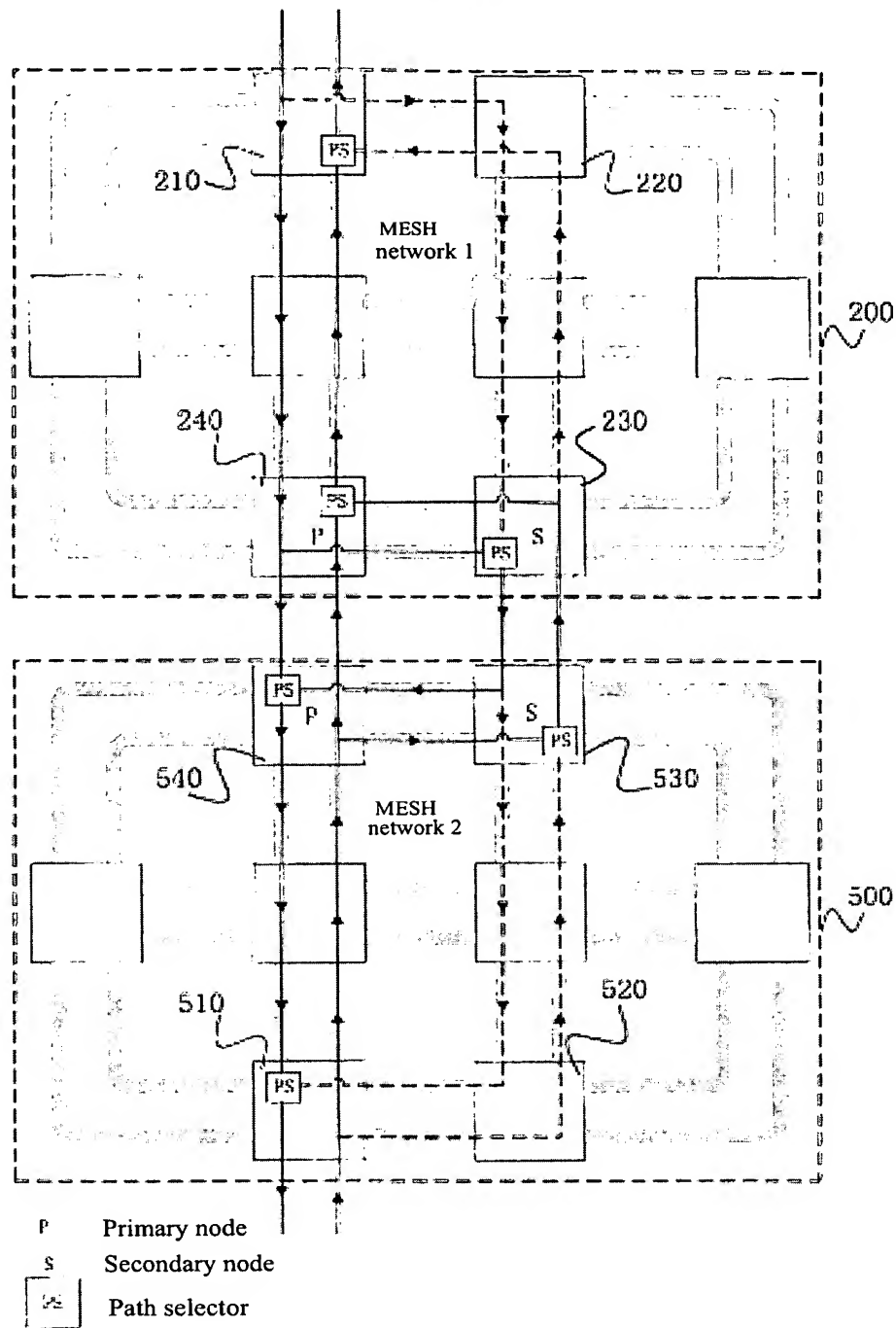


A dual-node interconnection scheme between two mesh networks with SNCP

Fig. 32



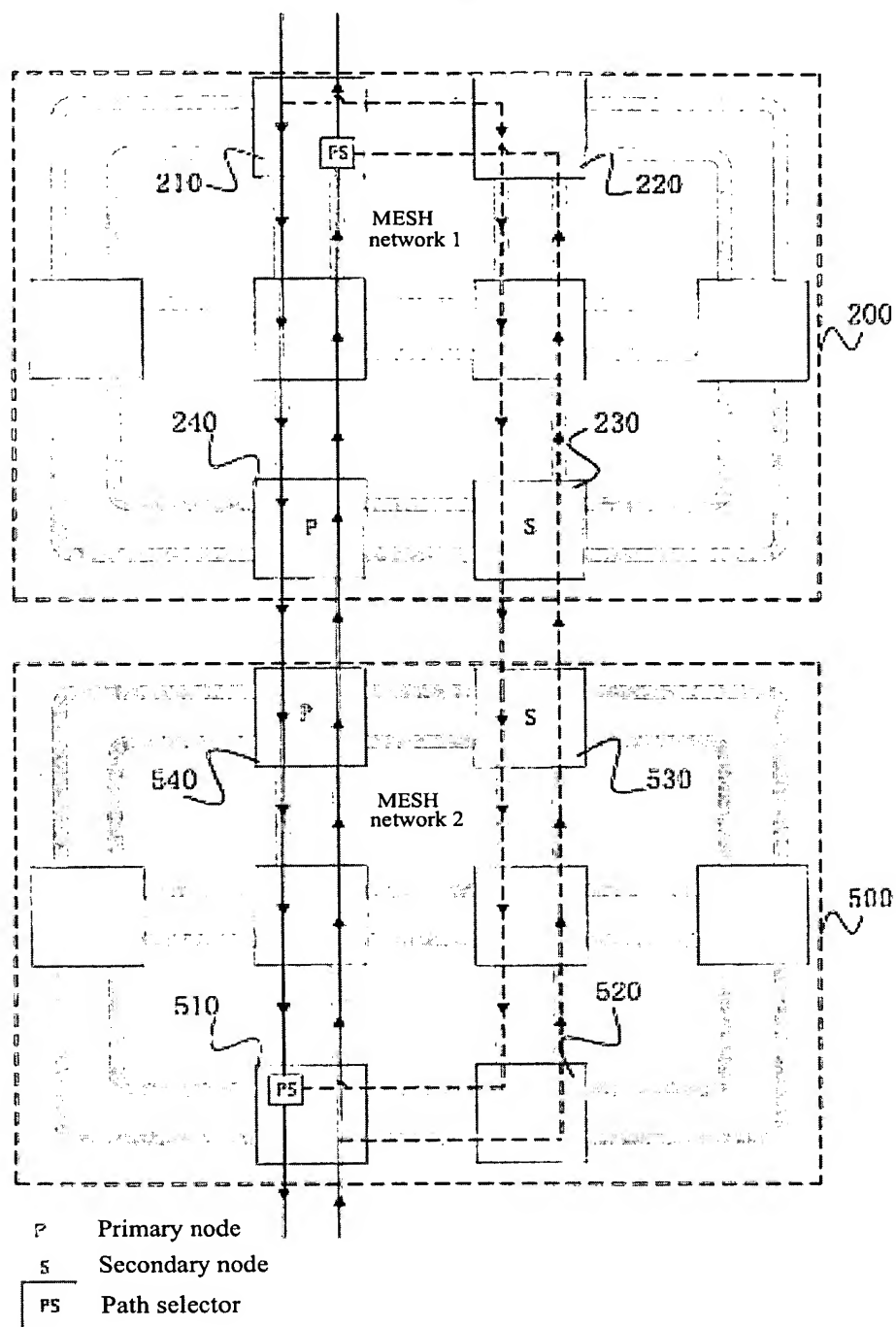
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The first dual-node interconnection scheme between two mesh networks with restoration

Fig. 33

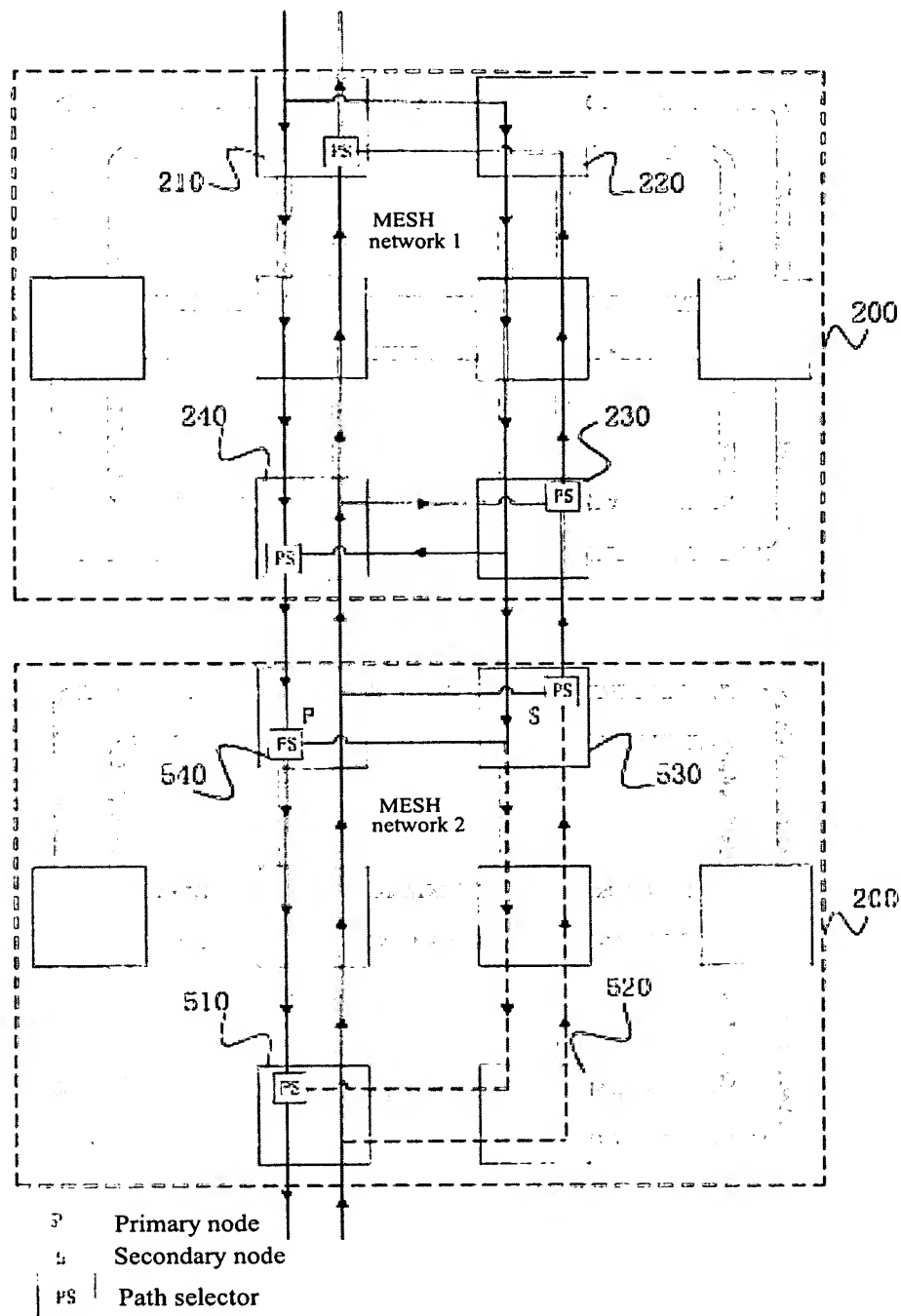
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The second dual-node interconnection scheme between two mesh networks with restoration

Fig. 34

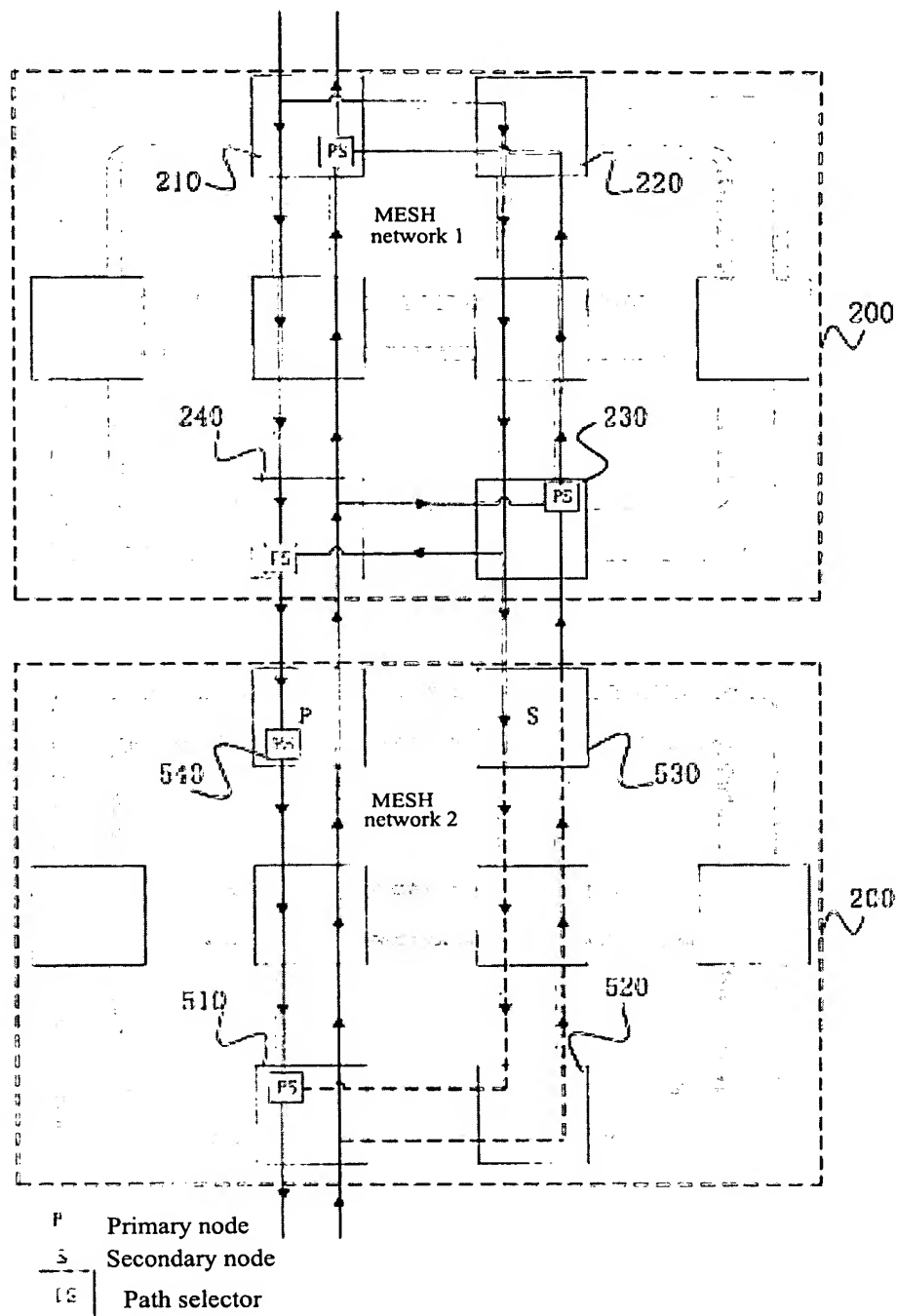
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The first dual-node interconnection scheme between a mesh network with SNCP and a mesh network with restoration

Fig. 35

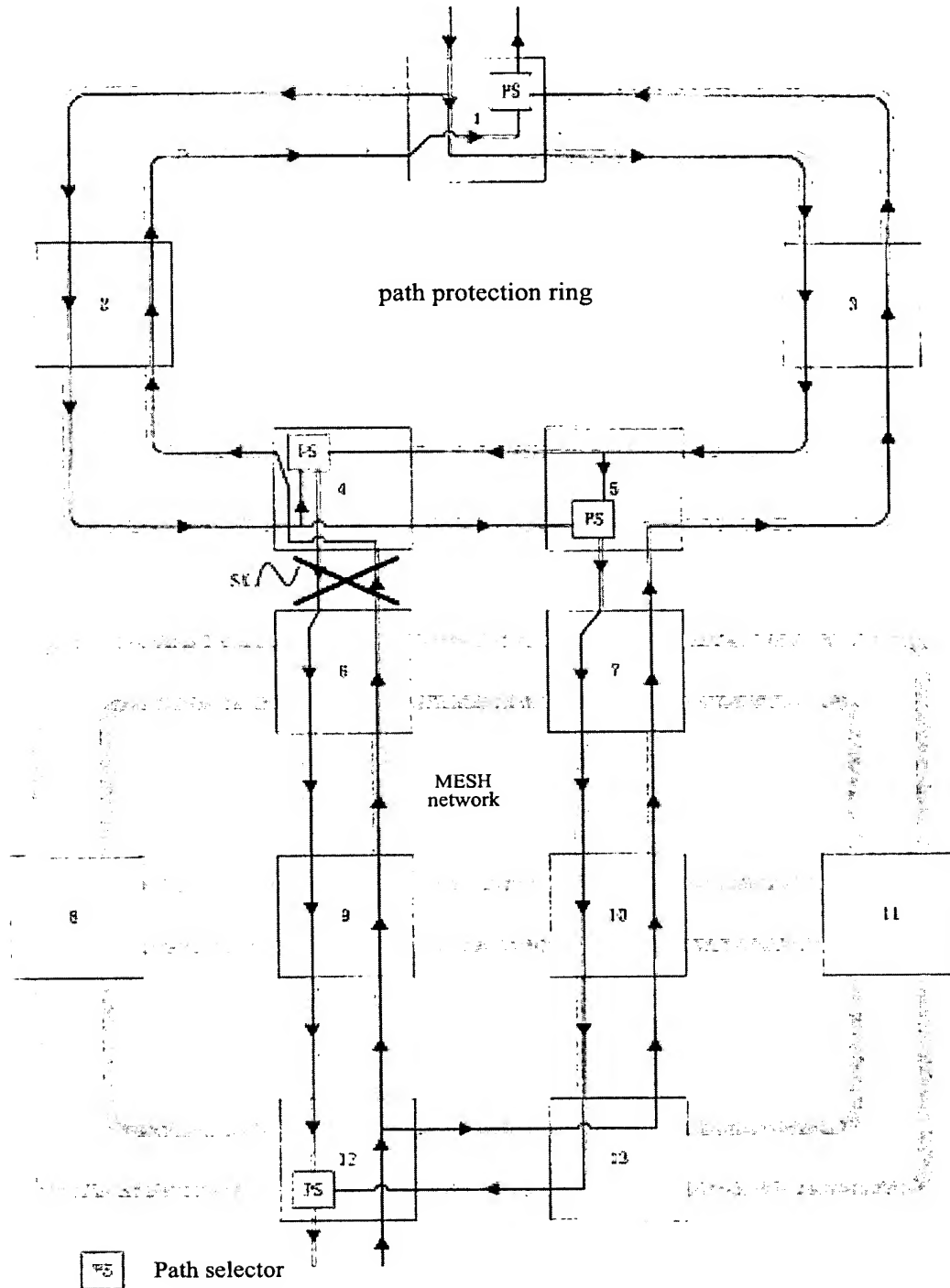
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The second dual-node interconnection scheme between a mesh network with SNCP and a mesh network with restoration

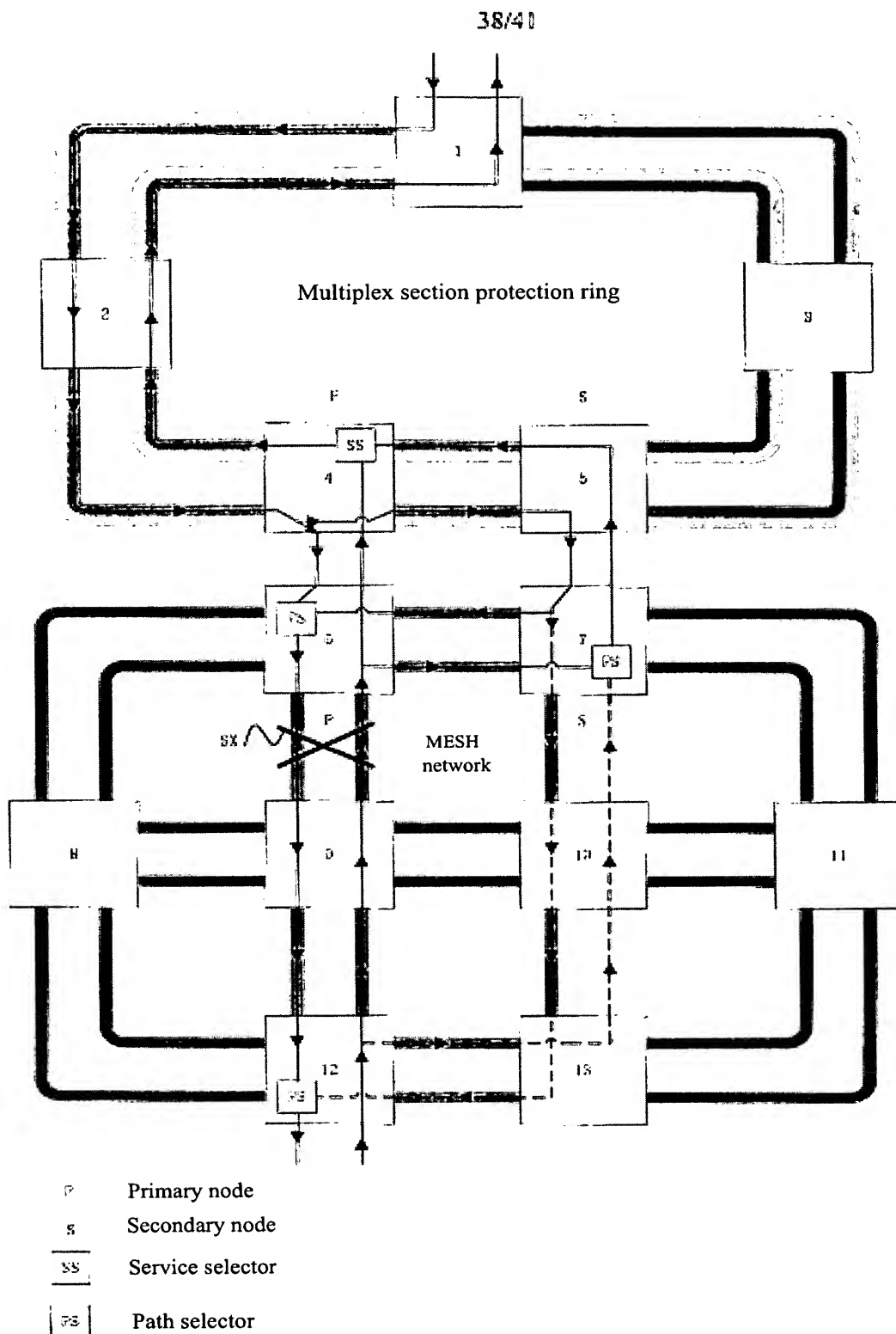
Fig. 36

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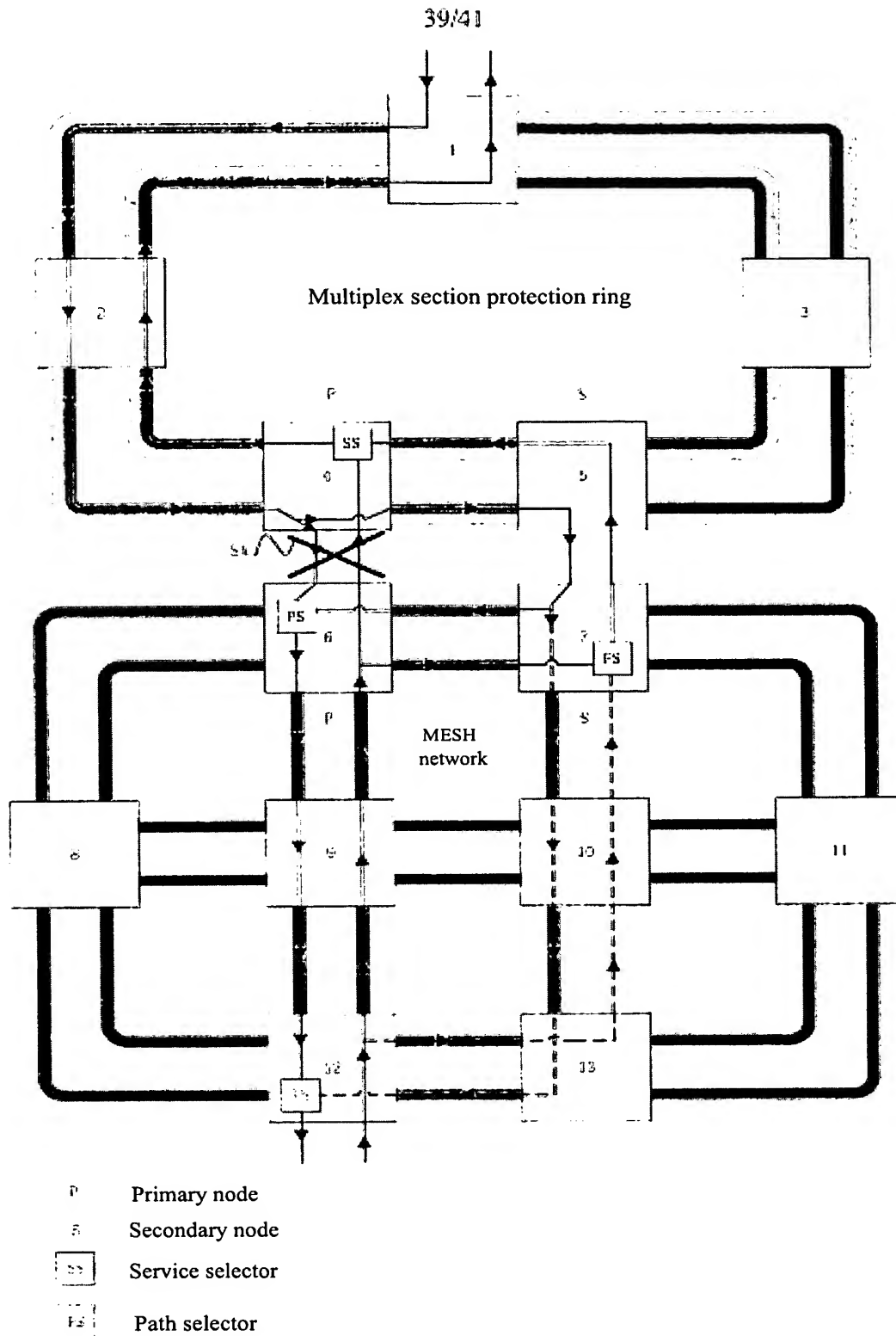
An inter-network link failure occurs when a SNCP ring and a mesh network with SNCP are dual-node interconnected

Fig. 37

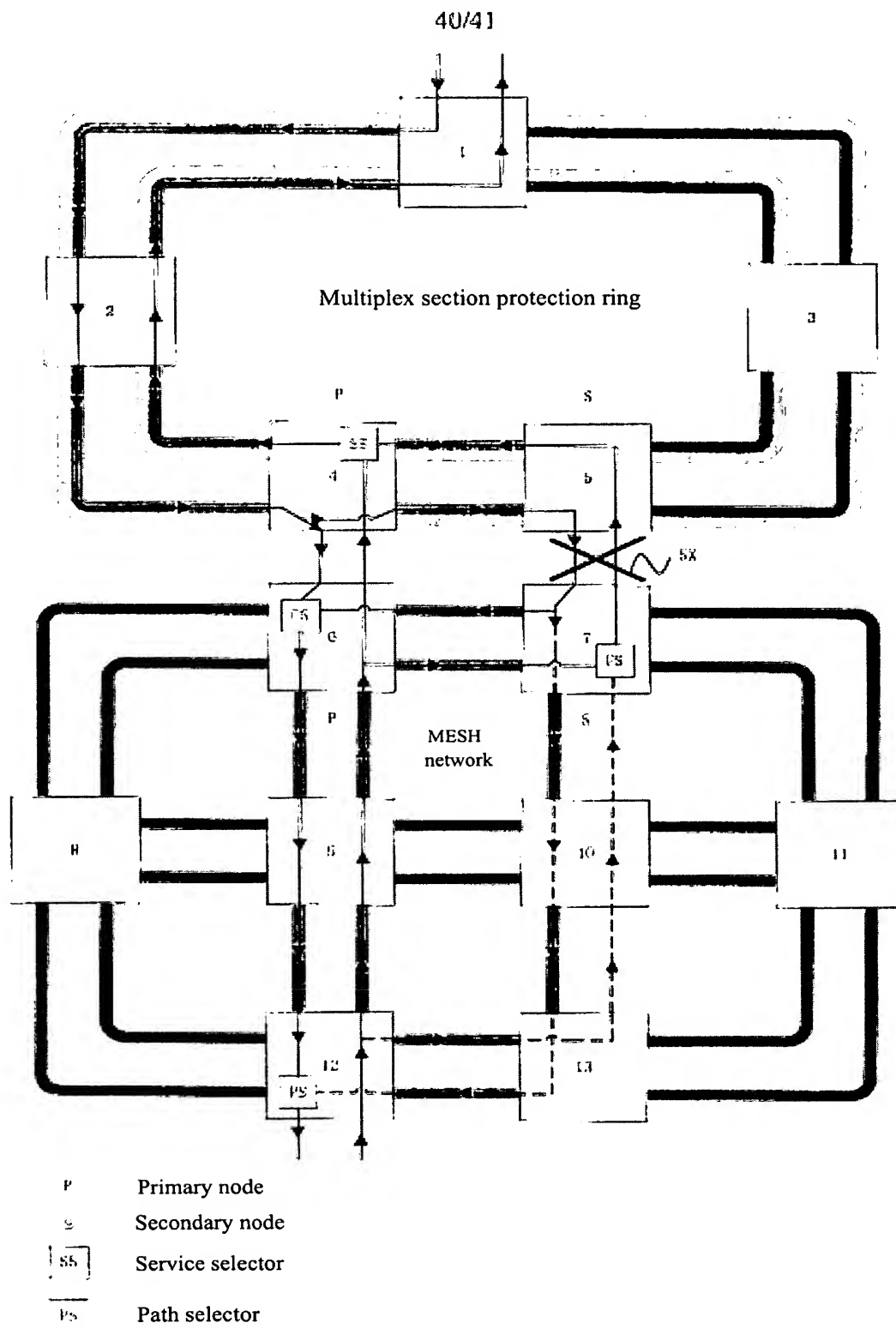


A restoration of a single link failure in a mesh network

Fig. 38



A protection of a single link failure between networks



A single inter-network link failure that does not lead to protection and restoration

Fig. 40



a restoration for a node failure

Fig. 41